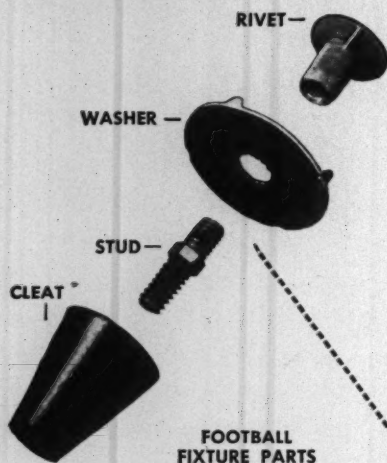




**EIGHTH OF A SERIES:** The Story of *Quality Athletic Shoe Construction* . . .



# Why You Get the **FINEST** When You Specify **Riddell®**

## REPLACEABLE FIXTURE ASSEMBLIES

**R**EPLACEABLE fixtures—a feature now universally used—were originated by RIDDELL more than a quarter century ago. However, there is a difference in design, construction and assembly that make RIDDELL fixtures far superior to all others.

### FIXTURE POSITIONS

The position of all cleat and spike fixtures in RIDDELL shoes are scientifically determined; and are in exact relation to the shoe size and width. They are established to maintain an even distribution of weight, reducing fatigue and providing the wearer with proper balance and utmost traction.

### FIXTURE PARTS

In RIDDELL Football Shoes, the complete fixture assembly consists of:

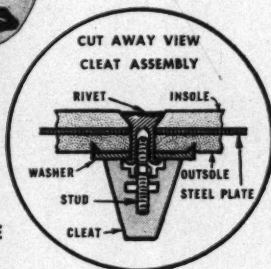
- **RIVET** with flanged head. Made of high grade steel—threaded.
- **WASHER**—Made of hardened steel with 4 prongs and corrugated center hole which assists in preventing cleat spinning.
- **STUD (POST ADAPTER)**—Made in one piece of special alloy steel—tough and durable to prevent stripping of threads and breakage. Two sets of threads are separated by a lock nut which is an integral part of the STUD.
- **Conical CLEAT**—Special composition, famous for durability and light weight. CONICAL CLEATS, a shape originated by RIDDELL, enter and are released from ground quickly and easily to assure good footing and maximum maneuverability. Various types are available for games, mud or practice.

### ATTACHING FIXTURES

From inside the shoe, the rivet is passed through the pre-punched guide holes in the insole and steel plates and pressed through the outsole. The washer is then swaged and secured over the rivet. Rolling the tapered end of the rivet over the washer follows. One end of the post adapter, or stud, is then screwed into the rivet flush up to the lock nut. The remaining threaded end of the stud receives the cleat, which is also threaded on the inside. This exclusive RIDDELL method of assembly is safe and sure, preventing any possibility of fixture from being pushed up into the foot. It is another phase of careful construction to complete the quality athletic shoe.



**COMPLETED FOOTBALL SHOE  
FIXTURES IN PLACE**



Coaches and athletes throughout the nation for more than a quarter century have recognized this singular quality that has become synonymous with the name RIDDELL.

When purchasing or recommending athletic shoes, remember, to be sure of the Finest . . . you can rely on RIDDELL!

**JOHN T. Riddell INC.**

1259 NORTH WOOD ST. CHICAGO 22, ILL.

Makers of the famous  
Safety Suspension Helmet



*Specialists in Finer Athletic Equipment for Head and Foot!*



# FOR MAXIMUM PROTECTION, COMFORT and SPEED

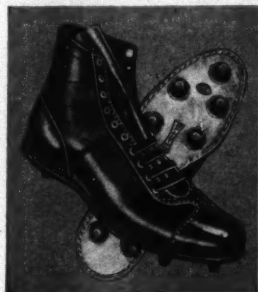


**100 (3109) Helmet**—Durable, light, comfortable and pliable to absorb and withstand shock. Composition rubber and synthetic resin-molded, one-piece helmet — no suspension. Sponge and foam rubber padding, lined with cowhide, fastened directly to helmet shell. Military type adjustable chin strap.

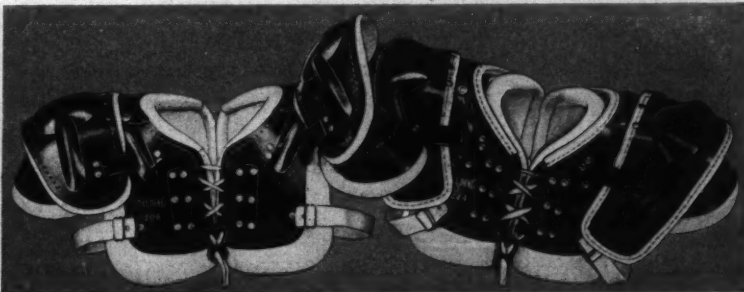


The new Spalding football equipment is designed to give fullest protection. Special construction features allow players the complete freedom of movement essential to fast, fighting football.

The choice of coaches of top ranking teams from coast to coast. See your Spalding dealer. He carries a full range of models to fit any budget.



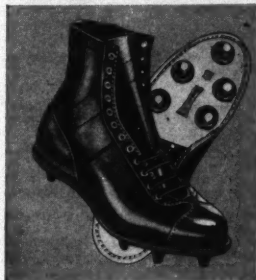
**264**—Choice grade, blue back Kangaroo uppers with soft toe, leather-lined vamp. One-piece combination outside counter pocket and back stay. Sole leather counters. Flexible full sole. Small game cleats attached. Sizes 6-13.



**3206**—Flat Style Shoulder Pads

**3224**—Cantilever Style Shoulder Pads

New webbing snubbers attached to epaulets spread shock, prevent transmission of blow to collar bone; can't tear out, prevent dislocation of epaulets. Shoulder caps and body of heavy red molded fibre, padded with cushion foam rubber. Double padding around edges. Adjustable, elastic webbing body straps. 3206 has suspended body straps for perfect fit... prevent pad from shifting.



**276**—Selected quality, extra height, full-grain leather uppers with combination one-piece outside counter pocket and back stay. Molded leather counters, grain leather insole and sponge rubber sock lining. Goodyear welt construction. Flexible full sole. Soft toe model. Fitted with small game cleats. Sizes 6-13.

# SPALDING

OFFICIAL WITH AMERICA



# Sportcraft

## EQUIPMENT

### for your

# Spring Sports

## ARCHERY

## BADMINTON

## BAT TENNIS

## DECK TENNIS

## FIELD HOCKEY

## SHUFFLEBOARD

## See Your Dealer

Ask him to show you the new Sportcraft 1953 catalog.

Write for free copies of rules' booklets for Badminton, Deck Tennis, Shuffleboard, Table Tennis, Bat Tennis, and the address of your nearest dealer carrying Sportcraft Equipment.

GENERAL

# Sportcraft

COMPANY

215 Fourth Avenue, New York, N. Y.

# SCHOLASTIC COACH

Reg. U. S. Pat. Off.

VOLUME 22 • NUMBER 8 • APRIL

## IN THIS ISSUE

HERE BELOW	5
STUDY OF WORLD'S ONLY 15-FOOT VAULTERS by Richard I. Miller	7
POLE VAULTING (Continuous Action Photos)	8-9
CONTROL PITCHING by William (Buck) Lai	10
PREACHER ROE DELIVERY (Continuous Action Photos)	11
DISCUS ESSENTIALS by Ken Doherty	12-13
MIDDLE DISTANCE TRAINING AND FORM by John A. Gibson	16
FOOTBALL CHARTING AIDS by Johnnie Golden	20
ON MARKS, GET SET, GO! by Paul R. Keller	24
TENNIS FOR YOUR SCHOOL by Leo LaBorde	28
TRACK MEET MANAGEMENT by Hale Roach	32
NEW EQUIPMENT	36
BASEBALL PRACTICE DRILLS by Walter Rabb	38
TEACHING THE FOREHAND AND BACKHAND by Jim Leighton, Jr.	50
COACHES' CORNER	54
NEW BOOKS ON THE SPORT SHELF	62
COACHING SCHOOL DIRECTORY	66

Cover Photo (Bob Richards Vaulting) by United Press

Publisher • G. HERBERT McCracken

Editor • HERMAN L. MASIN

Advertising Manager • OWEN REED

Art Director • MARY JANE DUNTON

SCHOLASTIC COACH IS ISSUED MONTHLY TEN TIMES DURING THE ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) BY SCHOLASTIC CORPORATION, M. R. ROBINSON, PRESIDENT, PUBLISHERS OF SCHOLASTIC MAGAZINES FOR HIGH SCHOOL STUDENTS.

ADDRESS ALL EDITORIAL AND ADVERTISING COMMUNICATIONS AND ALL CORRESPONDENCE CONCERNING SUBSCRIPTIONS AND CIRCULATION TO SCHOLASTIC COACH, 351 FOURTH AVE., NEW YORK 10, N. Y.

SUBSCRIPTION FOR THE UNITED STATES, \$2 A YEAR. CANADA, \$2.25. FOREIGN, \$2.50. BACK ISSUES CURRENT VOLUME, 25c; PREVIOUS VOLUMES, 50c.

THE ENTIRE CONTENTS OF SCHOLASTIC COACH COPYRIGHT, 1953, BY SCHOLASTIC CORPORATION.

SCHOLASTIC COACH IS A MEMBER OF THE CONTROLLED CIRCULATION AUDIT, A BUREAU FOR EXAMINING AND AUDITING CIRCULATION FIGURES FOR THE PROTECTION OF ADVERTISERS. CCA STATEMENTS OF SCHOLASTIC COACH CIRCULATION SUPPLIED ON REQUEST. THROUGH THIS SERVICE, SCHOLASTIC COACH ADVERTISERS RECEIVE INCONTROVERTIBLE EVIDENCE OF THE CIRCULATION THEY ARE PAYING FOR.

CCA

A  
Sensation  
Wherever  
Shown!

# Rawlings Formula 15

...for Positive Sure-Grip Ball Handling

Greatest improvement in basketballs and footballs in a decade! A sensational new plus-treatment for leather that provides a finger-traction never before possible—a Rawlings laboratory development that guarantees perfect sure-grip ball handling under every playing condition!

Moisture and perspiration have no effect upon it—but actually improve this remarkable non-slip surface treatment. Formula-15 won't rub off. Being non-sticky, non-gummy, it never picks up dirt and lint. Neither heat nor cold will affect it.

Only Rawlings "Royal Label" Balls have this outstanding Formula-15 treatment—the only footballs and basketballs with the perfect finish for Positive Grip!



## — WATCH FOR THIS LABEL

Rawlings Formula-15 treated R5 football, R55 and RLO basketballs are identified by this Rawlings "Royal Label"

RAWLINGS SPORTING GOODS CO. • ST. LOUIS 3, MO.



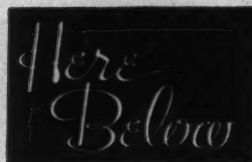
# *don't* bring the locker room into the ballroom



Get yourself Lenthéric's new 70° Deodorant Powder. Easy to use—handy non-breakable plastic squeeze bottle. Absorbent and mildly antiseptic. Keeps you fresh hours after showers. Available at better drug or department stores. For further information write Lenthéric, 673 5th Ave. Att: Sports Dept.







## Exclusively yours

TO AN editor, the word, "exclusive," is the sweetest sound this side of Guy Lombardo. That's why we're all puffed up this month. On pages 7-9, we're featuring a dandy "exclusive" all wrapped up in a 15-foot package. Exhibited for the first time in history is a motion picture study of every mammal (except the bat) who's ever vaulted 15 feet—together with an explanation of how they did it.

This epochal effort is the handiwork of Dick Miller, and every pole vaulting coach from Astoria to Zanzibar will find it full of meat and potatoes.

### TIME AND DISTANCE

KEN DOHERTY, who's as bright as they come, has been writing for us for years (his latest effort appears on pages 12-13), breaking in with several swell articles on distance running.

These pieces made quite an impression on a coach down in Waco, Tex. Just recently, he wrote Ken that he had read his stuff on distance running and applied its principles to a :24 sprinter who lacked strength. Within six months, he got the boy down to :21.9!

Ken promptly wrote for the fellow's exact practice schedule. "Maybe," says Ken, "I can get my :26 sprinters down to :24."

### WITHOUT ALTERATION

YOU could have knocked us over with a bridal veil when the National Basketball Committee refused to take the code to the "alter" at its annual meeting on March 19. Not one major change was written into the code.

This was wholly unexpected. With all the controversy over the one-and-one rule, the N.B.C. had been expected to drastically revise the fouling statutes. But they refused to take action.

They acknowledged that a lot of people were disgruntled with the one-and-one rule, but since nobody could produce an adequate substitute they decided to struggle along with it for at least another year.

You have to "go" for such a common sense attitude, and we "went." Our feeling is that the N.B.C. knows full well that the one-and-one rule is a failure, but before obliterating it they want to compound a good, solid replacement.

Though we'd have been happy if they had simply dropped the misfit—who'd miss it?—until developing something better, we'll string along with their temporary *laissez faire* policy. Especially since the coaches, after expressing themselves 3 to 1 against the rule, refused to recommend a change.

Though the committee made no major alterations, they did venture a superb recommendation. They agreed that the officials should eventually be empowered to call only those fouls which produce an unfair advantage, and to overlook the harmless little ones.

This, to us, represents progress. It's a sound, evolutionary, long-overdue step. Ever since the first lay-up, our officials have been instructed to call 'em by the book—

and the book allows for no individual discretion. Basketball, it says in effect, is a non-contact sport, and all contact—no matter how inadvertent—must be called.

This has made for some ridiculous foul calling. How many trillions of times have you heard the whistle blow for the slightest, most accidental brushing which had absolutely no bearing on the play?

An offensive player jogging into position accidentally brushes a defensive man. Nobody's progress is impeded, but—*toot!* Foul! A player goes up for a rebound, misses, turns to retreat, and accidentally jostles an opponent. Neither is in the play—the ball is moving elsewhere, but—*toot!* Foul!

Silly, isn't it? Yet the official has always been obligated to make these pointless calls. Giving him discretionary power to overlook them will make for a better, smoother-flowing game.

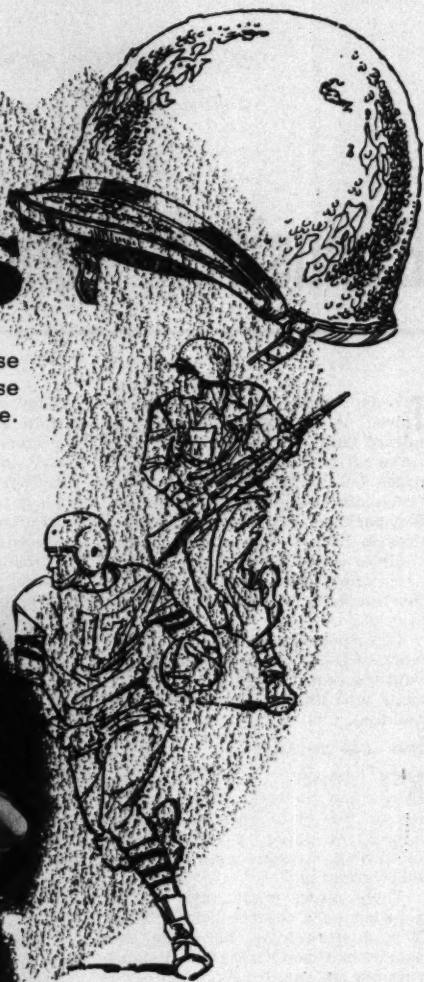
And, brother, does the game need it! Phog Allen wasn't too far off base when he recently claimed that basketball is becoming impossible to officiate. And—though it really isn't pertinent to this discussion—he was right smack on the base when he added that the spectators need showers more than the players.

### MID-CENTURY FESTIVAL OF AMERICAN SPORTS

CLIMB aboard, gentlemen: The Mid-Century Festival of American Sports is now officially underway and offers an excellent opportunity to dramatize your school physical education and sports program. You can do it in any manner you choose: By (1) demonstrations, sports field days, or school visitations where your program can be put on review for the community; (2) a play day or sports day for mass participation; (3) assembly programs with guest speakers and sports demonstrations; or (4) competitive sports events. This is a national program, and every school is urged to get behind it. You have a whole month (until May 17) to organize some type of demonstration. For helpful literature and posters, write to the Mid-Century Festival of American Sports, 1 North La Salle St., Chicago 2, Ill.

# HELMETS

The circumstances of their use  
vary greatly. But the basic purpose  
—*protection for the wearer*—is the same.



## The New Wilson **RP HELMET** (RUBBER-PLASTIC)

The big helmet "hit" with both  
players and coaches. Rubber  
and plastic gives better protection.  
Lighter weight, molded head shape  
and *hat* sizes provide amazing  
new comfort. Contact your  
Wilson representative.

WILSON SPORTING GOODS CO.,  
CHICAGO  
Offices in New York, San Francisco and  
26 other principal cities.  
(A subsidiary of Wilson & Co., Inc.)

IT'S **Wilson**  
TODAY IN SPORTS EQUIPMENT

By **RICHARD I. MILLER**

*Instructor, University of Illinois  
Author, "Fundamentals of Track  
and Field Coaching"*

**H**AVING laid down the fundamental precepts of pole vaulting in my first article (in the February issue), I'd now like to present a form study of the only four vaulters in history to clear 15 feet—Cornelius Warmerdam, Bob Richards, Don Laz, and Don Cooper.

Once upon a time, the "ceiling" for vaulters was 14 feet. In 1927, Yale's Sabin Carr shattered this myth with a jump of 14-0. Encouraged by Carr's performance, U.S.C.'s Lee Barnes raised the mark to 14-1½ in 1928.

Then came the 15-foot ceiling. For over a generation, vaulters looked up wistfully at the 15-foot mark. It came within reach on May 29, 1939, when Earle Meadows and Bill Sefton, U.S.C.'s "heavenly twins," tied at 14-11. But it remained for Cornelius Warmerdam to electrify the sporting world with his 15-1½ vault in 1940.

Today, three others have joined the very exclusive "15-footers club." This article is humbly devoted to the task of describing their feats.

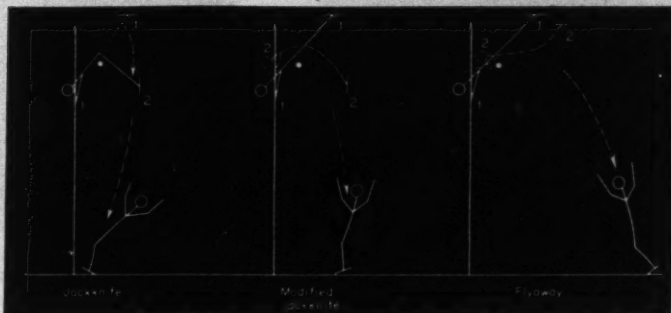
**On the next two pages, you'll find a motion picture sequence of each of these vaulters—the first progressive action study ever made of the entire "15-footer club."**

Before analyzing the photos picture by picture, however, a word is in order concerning the fallibility of describing a vaulter's technique from one sequence. The angle at which the sequence was photographed and the quality of that particular vault are deceptive factors to evaluate.

Also, I'd like to apologize for the poor photography on the Richards' sequence. We scouted the country for a good one but to no avail. In desperation we fell back on the one shown.

#### **PICTURE No. 1**

Warmerdam has just slid the pole into the vaulting box. The pole is planted just a fraction of a second before the take-off (left) foot hits the ground. Note the 90° to 120° elbow bend that cushions the sudden transition from horizontal to ver-



Illustrating the different methods of clearance. In each instance, 1 represents the action as vaulter approaches maximum height, and 2 the leg and body action in passing over crossbar. Each method produces a slightly different landing.

## Study of the World's Only 15-Footer Vaulters

tical direction. Cooper has taken off and is swinging forward and up.

This change in body direction pulls the arms into an almost fully extended position, as shown in the pictures of Cooper and Richards. A fully extended arm position isn't desirable because it is more difficult to pull up from this position than from a slightly flexed one. The pole should split the mid-line of the body on the take-off. Notice that Laz is a bit too far to the right on his take-off.

#### **PICTURE No. 2**

Warmerdam is using a beautiful right leg drive and accompanying hip thrust. Laz is using a pronounced right leg drive but doesn't appear to be fully using the benefit of a hip thrust. Going back to picture No. 1 of Richards, notice how the body is bowed; the hips are thrust ahead of the feet and hands at this point.

A prominent forward hip thrust at this early point is very important because it helps keep the body from getting ahead of the pole on the swing-up, and allows the body to "snap" forward a fraction of a second later. Laz's Swedish steel pole shows real bend at this point (No. 2). The vaulter's effort is aided by the pole snapping back into normal

position at the right time—as the feet are well on their way upwards.

#### **PICTURE No. 3**

Warmerdam and Cooper show excellent distribution of the body weight around the pole. As the body swings past the pole, the knees are brought up toward the chest and the body is "rolled back" on the pole. This important action shortens the lever arm so that less effort is needed to lift the body.

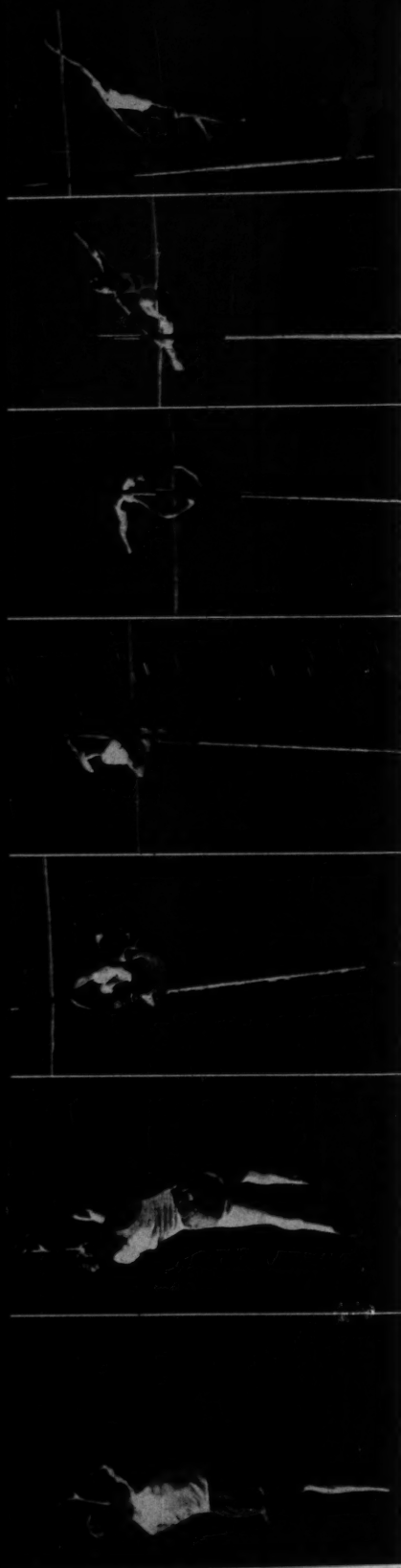
Going back to picture No. 2 of Richards, notice that he doesn't "cuddle up" the legs as Warmerdam and Cooper, but uses an almost straight leg lift. He's able to do this because of his great strength. In fact, if a vaulter has the strength and reflexes to use a straight leg lift, he will receive a greater "shoot" upward. For the great majority of vaulters the knee-tuck or "cuddle" position has two important advantages: it shortens the lever arm which facilitates the pull-up, and it helps distribute the body weight properly around the pole.

#### **PICTURE No. 4**

Warmerdam has completed the

*(Continued on page 44)*





1

2

3

4

5

6

7

# **CORNELIUS WARMERDAM**

The all-time champion conserves strength by "cuddling up" his legs on his up-swing.



1

2

3

4

5

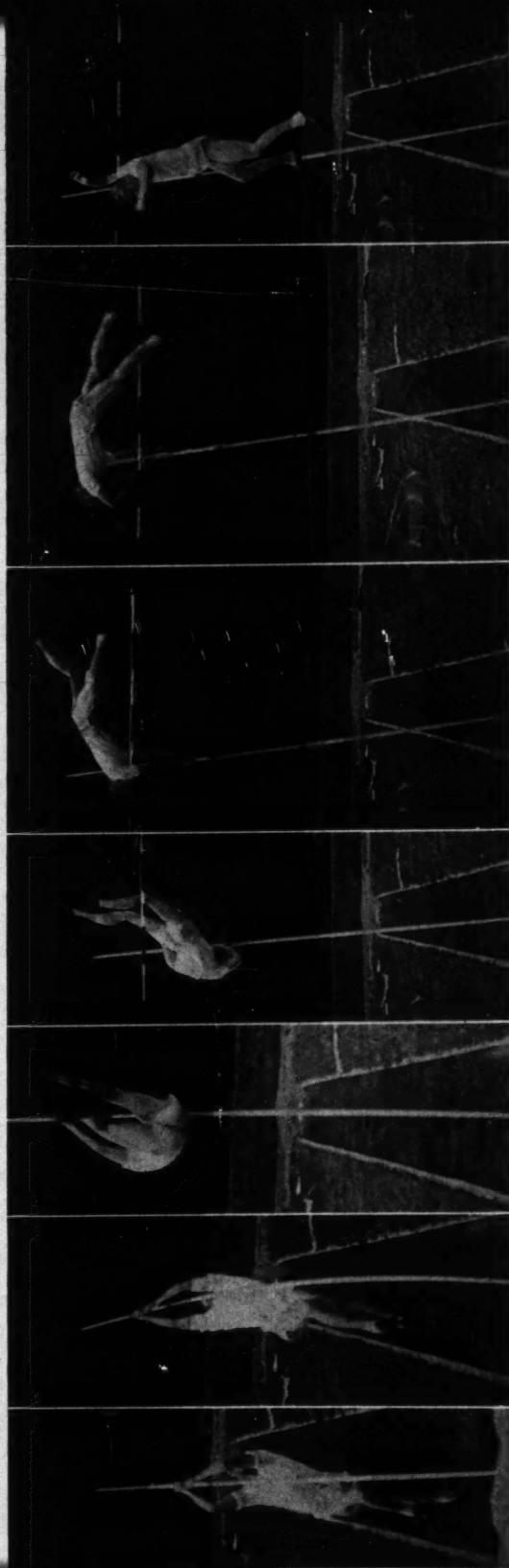
6

7

# **BOB RICHARDS**

The 1952 Olympic champion exploits his great strength by employing an almost straight leg lift.

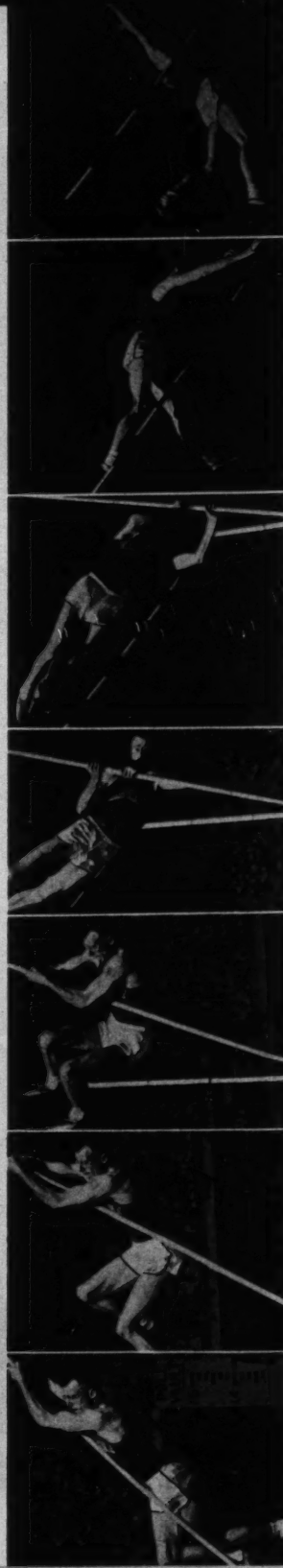




1 2 3 4 5 6 7

**DON LAZ**

In modified jackknife, the last phase of clearance is a backward flick of the pole with right hand.



1 2 3 4 5 6 7

**DON COOPER**

Like Warmerdam and Laz, the Nebraskan has achieved his top heights with a modified jackknife.

# Control Pitching



By **WILLIAM (BUCK) LAI**

Scout, Brooklyn Dodgers—Coach, I. I. U.

**A** PITCHER may have all the prerequisites for greatness—a strong arm, intelligence, courage, poise, endurance, knowledge of the rules—and still fail to become a winner. The missing quality—that essential catalyst—is *control*. Unless the boy can get the ball over *when-ever* and *where-ever* he wants to, he won't go far as a pitcher.

Good control, unlike the ability to throw hard, isn't inherited. It's a *developed* quality. With the right sort of practice, any pitcher can improve his control.

Poor control may stem from one small fault or a combination of faults. The more common contributing factors include: improper stance on the rubber, poor head action, im-

proper delivery, and holding (fingering) the ball incorrectly. No two hurlers throw the ball in *exactly* the same fashion, and the wise coach will always allow for individual differences.

## HORIZONTAL CONTROL

Some pitchers may do everything correctly and still have trouble with their control. A boy may, for example, be constantly throwing the ball outside (or perhaps inside) to right-handed hitters.

This "consistent" type of error—i.e., always throwing the ball out of the strike zone, but in the same general area—may be corrected by changing the *horizontal* position on the rubber.

This means that if the pitcher is always throwing outside to a right-handed hitter, he should move to the right side of the rubber. Or, conversely, if he's constantly pitching inside to the right-handed hitter, he should shift to the left side of the rubber.

The wise pitcher knows that though he must maintain contact with the rubber, he doesn't have to keep in the middle of it. The rubber is 24 inches long and the smart hurlers avail themselves of this latitude.

## VERTICAL CONTROL

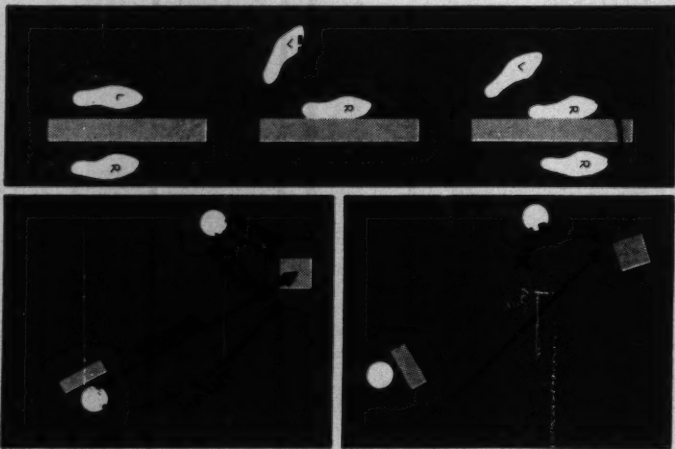
The pitcher who consistently delivers high, up around the batter's shoulders or head or maybe even higher, might well be failing to bend his back. This type of pitcher usually throws from an upright position, and should be prevailed upon to bend his body in order to deliver the ball lower.

A simple but effective stunt may be employed to develop this habit. Take a position alongside the youngster and have him bend his back as he throws a ball to the catcher. Carefully note where his right hand comes to rest in the follow through. It should stop a few inches above the ground near the left foot.

Mark this spot with a pebble, orange peel, resin bag, or other small object. Then have the pitcher warm up with the catcher, *picking up this object at the end of every follow through*.

The boy doesn't look at the object as he throws. He keeps his eyes on the target, completes his follow through, and then extends his hand a few inches to pick up the object. After picking it up, he replaces it (for his subsequent pitches).

(Continued on page 48)



**TOP:** (left) Straddle stance over rubber for taking sign with man on base, recommended for balk-conscious pitchers; (center) Correct sideward stance prior to delivery with man on base; (right) Backward step which makes pitcher eligible to throw to any base.

**BOTTOM:** (left) Right and wrong ways of covering first on slow hit balls to right side; (right) Correct way of pivoting (to left) for pick-off play at second base.



Taking sign on rubber with pitching hand concealed behind thigh (or lower back).



Arms are brought forward preliminary to pumping action. Glove hides ball from batter.



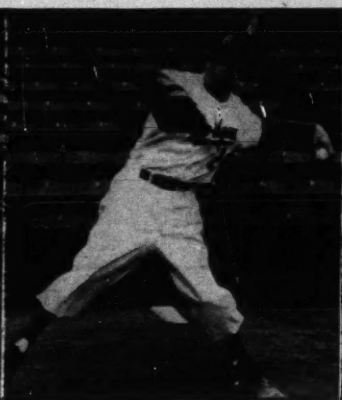
Note front spikes planted ahead of rubber, as arms pump back and weight comes forward.



Glove comes up with back facing hitter and front foot is turned slightly outward.



Leg rears at end of pivot and ball (hidden nicely) is taken from glove.



Ball is smoothly brought far back (note that relaxed wrist) and full step is taken directly toward plate.

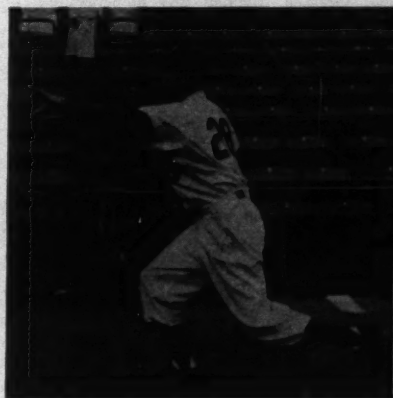


Front knee is flexed, as rear leg generates drive; gloved hand stays up for balance.

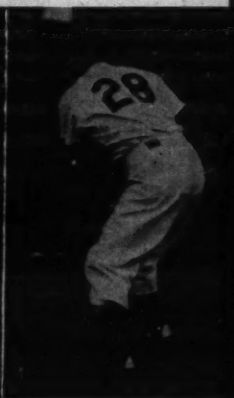


Elbow and wrist lead, assuring loose (not stiff) delivery and natural snap action.

Preacher Roe, ace Dodger southpaw, demonstrates the mechanics of a simple, efficient delivery, stressing a loose motion with plenty of elbow and wrist snap. The ball is concealed from the batter as much as possible, and Roe finishes on balance facing the batter.



Ball is released with full extension of arm and strong elbow and wrist snap. Weight flows onto front foot, and arm follows through naturally. Rear leg then comes forward, bringing Roe into ideal fielding position.







**top: JIM DILLION**  
Auburn, '53, 175' 3½"

**bottom: FORTUNE GORDIEN**  
Minnesota, '49, 186' 10½"

THESE eight views of Dillion and Gordien present an interesting contrast in throwing styles. The over-all difference, one should note, stems from the degree of momentum attempted in the turn.

Quite obviously, Gordien (bottom) has permitted his weight to fall well beyond his point of balance (left foot, Nos. 1-3) and is pushing his weight around the 1½ turn as rapidly as he can. Dillion is more conservative in this respect. Contrast Dillion in No. 3 with Gordien in No. 3, then do the same for the No. 4 pictures.

In every instance, from the 1st through the 5th photos in each series, a plumb line dropped from Dillion's center of gravity would hit a point in the ground several inches behind or back of that established by Gordien. This means that Dillion's balance is less precarious and he's more likely to achieve a more stable position of power at the front of the circle (Dillion, Nos. 5-8).

Another general difference between these two throwers lies in the plane within which the discus moves during the "pulling" or "throwing" stages of the action (Nos. 5-8 of each series). Gordien's "falling" style tends to produce an under-arm or down-around-and-up style. Contrast his low discus position in No. 7 with that in Dillion's No. 7, or with Fig. A on page 14. In consequence, Gordien often turns the

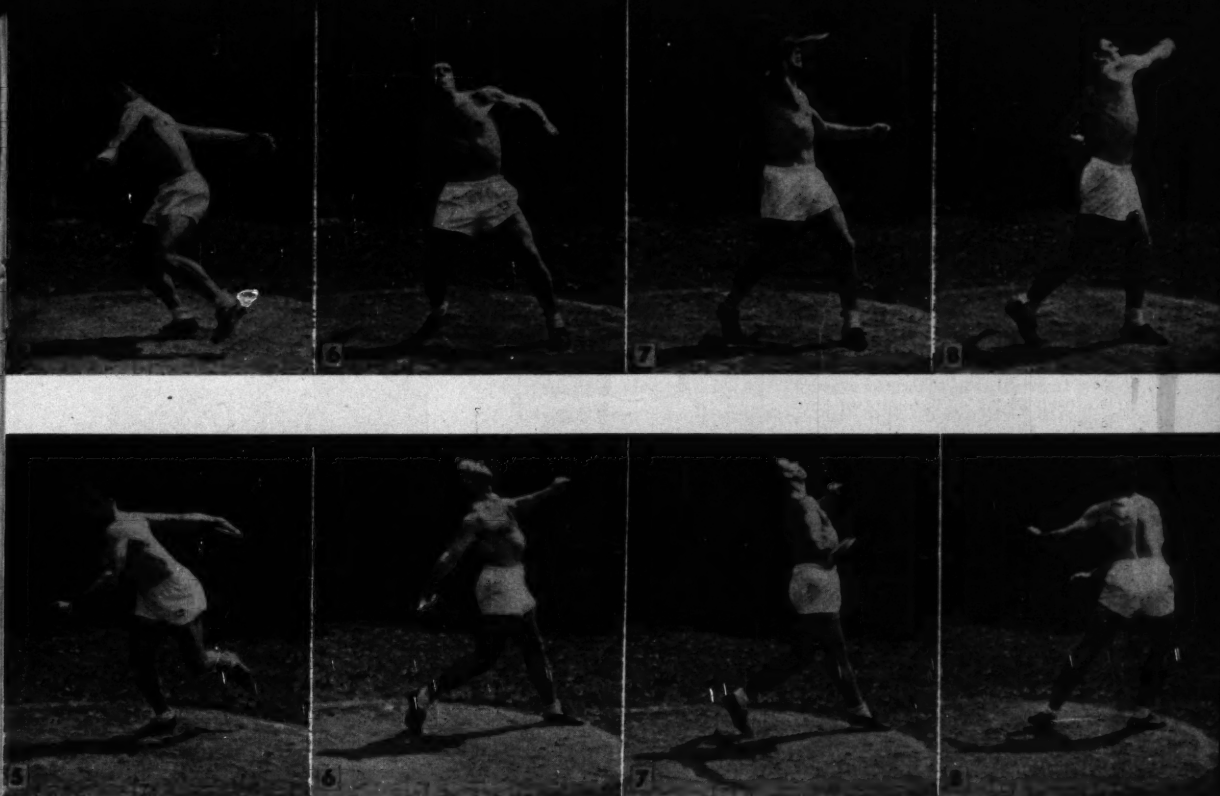
front of his discus too high so that it bucks the wind and often fails to carry his power out in the direction of the throw.

Dillion has brought the discus through (Nos. 5-8) along a single plane as recommended. However, he failed to secure a proper brace of the left leg (No. 7 should show a straight leg as in Gordien's No. 6), and has pulled away from the discus rather than followed up into the throw (No. 8). It seems apparent that this isn't one of Dillion's best efforts.

Gordien has a much more relaxed action throughout. Note that his right arm is "limp as a rope," as he himself describes it, and that the arm as well as the entire right shoulder and side are well back throughout the turn. They are "forward" from the standpoint of aiding the turn but "back" from the standpoint of providing position of power. In contrast, Dillion seems tight in his arm, shoulder, and back muscles (Nos. 2-4).

The writer believes that the marked upward hop consistently employed by Gordien is neither necessary nor desirable. To achieve high momentum, both feet must be off the ground in the middle of the turn, but the center of gravity should remain low as in the glide of the shot put, and the feet should remain as close to the ground as possible.





# Discus Essentials

By **KEN DOHERTY**

*Track Coach, U. of Pennsylvania  
Author, "Modern Track and Field"*

**A**FTER 50 years of experimentation in discus throwing, track coaches now know that distance can be achieved by *effectively combining* body momentum with body power and concentrating the resultant force behind the discus.

Note the emphasis on the words, "effectively combining." That's the crux of the problem—a problem that both coaches and throwers are still trying to solve.

Of the two factors—body momentum and body power—the second is the more effective. In an ordinary throw of 150 feet, the writer believes that about 130 feet is secured from the power of the throwing muscles and only about 20 feet from the centrifugal force of the turn.

The achievement of maximum body power is pretty generally understood. For example, the throwing stance of Bud Houser (U.S.C.,

1924-28, 158' 1¾") was just as powerful and his throwing action just as effective as those of our greatest throwers today.

In any case, a careful study of the accompanying pictures of Fortune Gordien and Jim Dillion should clarify the important details of this action.

One point needs great emphasis, however. Despite the method of many fine throwers, notably Gordien, the discus should move from its "dragging" position behind the hips at the same angle desired in the throw itself.

The almost universal tendency is to first rotate the hips forward away

from the discus, to permit the arm and the discus to drop down close to the hips as they swing under and around, and to attempt a high trajectory by lifting the discus in a deep arc, under and up.

Coaches should understand that the greatest power and velocity is present when the action is up and out, somewhat similar to that in the shot, and when the lift of the discus begins at the start of the forward pull.

The action should start with an upward drive of the right foot, knee, hip, and shoulder. This lifts the discus immediately so that as it reaches a point opposite the shoulder, it is at shoulder level.

Study the relative positions of the discus and the shoulder in **Fig. A**. This method produces greater power, a better follow-through up and out with the discus, a flatter plane

of the discus itself, which encounters less wind resistance, and a higher effective trajectory.

With this exception, the achievement of body power is adequately explained in the various texts, so that our attention here may be concentrated upon the problem of securing and utilizing body momentum.

According to the principles of body mechanics, the degree of momentum is contingent upon the degree to which the center of gravity is placed ahead of the point of balance.

That is to say that if low momentum is desired during the turn, the great weight of the hips and shoulders should be kept almost directly over the feet. This is done in the now discarded "step around the circle" style employed by Bud Houser and Hugh Cannon (Utah, 1943, 175' 10").

For high momentum, as employed by Robert Fitch (Minnesota, 1946, 180' 2 3/4") and Gordien (see accompanying photographs), the shoulders as well as the hips are thrown well ahead of the feet. The thrower literally falls around the circle.

The momentum of this fall is ac-

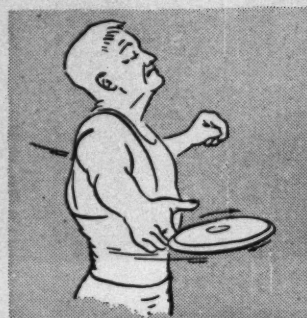


Fig. A, proper release of discus. Note that it rotates clockwise around last joint of first finger. As it approaches a point opposite shoulder, it's approximately at shoulder level. Back is straight, head erect, and chest up.

celerated by the pushing action of first the right then the left leg after the body weight has fallen beyond them. It's kept from ending in an actual fall by the rapid "catching up" movement of the right foot to the center of the circle and later by the bracing action of the left leg at the front of the circle.

This style, first used to an extreme

by Fitch, produces high momentum but makes it very difficult to achieve a proper throwing position at the front of the circle and especially a solid well-balanced stance as the final actions are made.

In the writer's opinion, neither Fitch nor Gordien, despite their world records, were quite able to attain either perfect balance or a best possible throwing action in the final stages of their form. Had they



Fig. B, device for practicing the turn without throwing. Strap prevents discus from slipping out of the hand.

continued to work hard for several more years, they'd have probably perfected this aspect and would have set records up toward or even over 200 feet.

Almost all other throwers—for example, Consolini (Italy, 1940-1952, 181' 6 3/4") and Iness (U.S.C., 1952, 183' 2")—have placed a lesser emphasis upon momentum. They've moved the center of gravity only slightly ahead of the point of balance by holding the shoulders well back while shifting the weight of the buttocks and hips around and across the circle ahead of the feet.

The contrast in the pictures of Dillion and Gordien illustrate this point very clearly.

In teaching discus form, then, both for beginners and experienced men, the key question is just what degree of body momentum should the thrower try to achieve. The answer depends of course upon the particular individual. If his interest is likely to be low, or if his available practice time or years of eligibility are at minimum levels, then a form using low momentum is most practical.

In such a case, stress proper control of the discus and teach a sound throwing position and action preceded by a rapid walk around the circle. About three-fourths of maximum distance can be secured by such a method—enough perhaps to win a few dual meets.

On the other hand, if ability, time, and interest are all at high levels, there's almost no limit to possible body momentum. Frank Ryan,

(Continued on page 60)

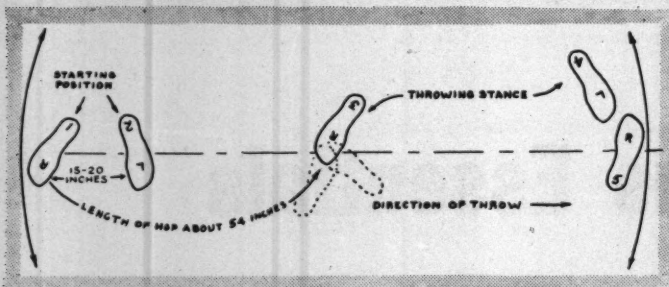


Fig. C, Footwork in discus using 1 1/2 turns—a sound but conservative style.

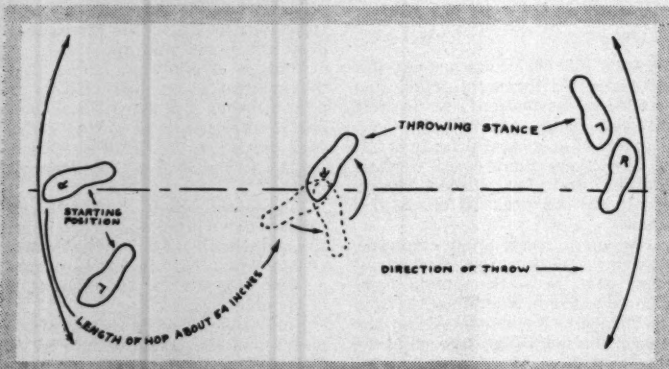


Fig. D, Footwork in discus using 1 3/4 turns. Prints of right foot are on center line and toe of left foot is in line with heel of right foot.

# SHOOT FOR FAST ATHLETES' FOOT RELIEF

# Octofen®

*High percentage of success in tough clinical tests!*

Athlete's foot has rugged competition in OCTOFEN. Powerful (but gentle) OCTOFEN LIQUID kills *Trichophyton mentagrophytes*, the most common fungus causing athlete's foot, in 2 minutes flat by laboratory test! In many cases, OCTOFEN clears the condition in a week! That's why it's called the "solution" for athlete's foot. Non-irritating, greaseless and quick drying!

## YOU CAN'T BEAT A 2-WAY ATTACK!

Many specialists recommend a liquid treatment followed by a powder application. This prolongs the liquid's fungicidal activity—helps keep feet dry—a great help in avoiding reinfection! Soothing OCTOFEN POWDER contains silica gel with amazing moisture absorbency to help keep feet extra dry. It's smooth, non-caking and provides long antifungal action. Cools, comforts tender, irritated feet, as it curbs foot odors!

## 8-HYDROXYQUINOLINE IN BOTH

One of the most potent anti-fungal agents yet discovered!

OCTOFEN  
LIQUID



Octofen Liquid and Powder are approved by National Foot Health Council!

OCTOFEN  
POWDER



## COACHES— TRAINERS—

Free samples of OCTOFEN and literature are yours on request!

Write Dept. SC

Outstanding Research Products of  
McKESSON & ROBBINS, INC.  
Bridgeport 9, Connecticut



By JOHN A. GIBSON

Track Coach, Seton Hall University

# Middle Distance Training and Form

**T**HE modern middle-distance runner must possess both the speed of a sprinter and the stamina of a distance man. Our better middle-distance men combine these qualities to a superlative degree, enabling them to make respectable showings both in the longer events and in the shorter distances.

This latter fact is attested to by the number of outstanding 440 to 1000 yard men who are good enough to run with the best in the 100 and 220 dashes.

This would lead one to believe that the major portion of their training programs should be devoted to speed—working with the sprinters or at distances considerably under their regular events.

While this type of training would undoubtedly increase their speed, it wouldn't necessarily make for a winning performance. Running fast is one thing; going the full route is something else. Where the entire emphasis is on this type of training, you'll find the athlete short of work and failing badly in the last stages of races.

Another school of thought goes to the opposite extreme—stressing over-distance work. The emphasis here is on the continual running of distances in excess of those to be covered in a race.

Like speed training, this doesn't always furnish the desired results. The over-distance trained runner often becomes confused at the early speed of a rival, and will find when he tries to keep up with him, that even though he may have more stamina through over-distance running, his mental equilibrium has been upset; and before he can recover, the race may well be over.

These contrasting theories undoubtedly have their values and cannot be blithely dismissed. Certain types of athletes can and do thrive on such training. But most of them are exceptions to the rule.

A happy medium must be reached

whereby the athlete will incorporate the best of both principles. Only through constant application to his training and hard work will the athlete be able to accomplish this.

I always prescribe a good foundation of cross-country training in the fall and again in the spring before settling down to the serious problem of getting the athletes ready for competition in their favorite events. Middle distance men will find, during their main period of competition, that they'll be called upon at least once a week and sometimes twice or more in one day to extend themselves to almost maximum effort. This is where they'll derive their greatest benefit from the cross-country work.

Distances of five miles or more aren't too long for the average middle-distance man. If he can do this training on a course having rolling and occasional steep hills, it will benefit him more than work on a level course. Having to pick the knees up when tired helps put the same strain on the athlete as that coming down the homestretch in a grueling race.

## PROMOTE LOOSE HIPS

This preliminary training should be inter-larded with exercises designed to promote looseness of the hips, which all middle-distance men must have in order to reach the heights. Recall the running styles of Mal Whitfield, George Rhoden, Herb McKenley, Don Gehrman, Arthur Wint, John Barnes, Reggie Pearman, Roscoe Brown, Phil Thigpen, Frank Fox, George Guida, and other stars too numerous to mention, and you'll find, after close scrutiny, that their hips are very loose and provide a tremendous amount of power and speed.

If you were to watch Pearman, Whitfield, and Thigpen in their finishing drives, you'd find that this hip looseness is perhaps the domi-

nant factor of their style at that juncture—and this is where they must have it, since the drive for the tape tells the story.

There are many exercises which will help improve or foster this fundamental. Raising the knee up to the shoulder, for instance, is one of the most popular and effective means of promoting hip looseness.

Once an athlete has been brought to this stage, we're ready to go ahead with the more serious business of training for the competitive season, which always seems to arrive much sooner than anticipated.

With the basic groundwork finished, we begin pushing our charges to get the best out of them. Hard work never hurt anybody, and many coaches would do well to remember this. Coaches can become too human and fall for a lot of nonsense from the boys.

Anyone who's gone through the training mill knows that there are many times when you want to give up and it's only the prodding of a coach who's wholeheartedly interested in you—despite all his barking—that forces you to greater achievements than you thought possible. Those of us who've experienced this should feel obliged to give the same consideration to those now under us.

I believe that the training program should embody both the under-distance or speed work and the over-distance or stamina training. The speed work should be done with the sprinters, so that the athlete can also learn to run and drive like a sprinter in his dash for the tape.

The boy's speed work should never exceed two-thirds of his competitive distance, and in most cases it should be much shorter than that. It should also be limited to two days a week to avoid draining too much of the athlete's energy. Ordinarily I like to concentrate on this type of work on Wednesdays and Thursdays to sharpen the boy for the competition on Saturday or, perhaps, Friday.

However, I don't think you can set up a specific speed program for an entire squad. Each man has his own peculiarities, and these must be given more attention in order to derive the most of his potential. The coach should decide at what distance each man must work for speed, and above all should insist that the athlete make every effort to do all his work with ease and relaxation.

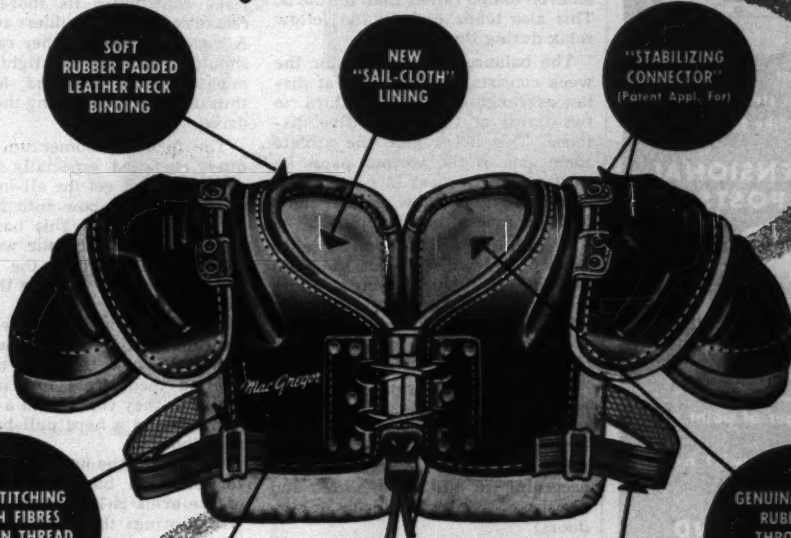
(Continued on page 18)





for complete protection  
specify the new 1953

# MacGregor<sup>®</sup> Shoulder Pads



SOFT  
RUBBER PADDED  
LEATHER NECK  
BINDING

NEW  
"SAIL-CLOTH"  
LINING

"STABILIZING  
CONNECTOR"  
(Patent Appl. For)

LOCKED STITCHING  
THROUGH FIBRES  
WITH LINEN THREAD  
PREVENTS RAVELING  
OF STITCHES

GENUINE "AIRLITE"  
RUBBER PAD  
THROUGHOUT.  
EXTRA LAYERS OF RUBBER  
AT VITAL POINTS

WATER PROOFED  
HEAVY GAUGE  
FIBRES

TUNNEL  
TYPE  
LACER

UNDERARM  
STRAPS ARE  
ADJUSTABLE  
AND  
REPLACEABLE

the  
choice of  
those who  
play the  
game

**MacGregor<sup>®</sup>**  
**Sports Equipment**

Chicago, Cincinnati, Los Angeles, New York

**EXCLUSIVE**  
**BROOKS**  
**FEATURES**

give you a stronger,  
tougher football shoe

**BROOKS-TEX  
UPPERS**



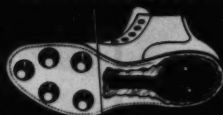
- water-resistant
- no lengthwise stretch
- lasting glove-like fit

**TWO-DIMENSIONAL  
CLEAT POSTS**



- 100% stronger at point of most strain
- heat-treated—will not break

**NATURAL BEND  
CONSTRUCTION**



- built-in arch support
- designed to flex at the natural bend of the foot

**BROOKS-TEX UPPERS ALSO  
AVAILABLE ON BASEBALL  
AND TRACK SHOES**

**MAIL THIS COUPON TODAY!**

Brooks Shoe Manufacturing Company  
Dept. 5C-4, 58th & Market Sts., Phila. 39, Pa.  
Please send me your latest school catalog.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Relaxation is perhaps the biggest asset a runner can have. If he can learn to relax while running, he'll never undergo the strain which leads to so many fellows tying up. Hence, in our over-distance work, we always stress running with a swinging hip and relaxing.

While we always want the fellow to go through his workout with at least a fair amount of speed, more than anything else we want him to acquire the habit of an easy free-swinging stride. So, on Mondays and Tuesdays, we run the men through distances much greater than those at which they'll compete, with careful attention to the in-between times so that the distance is run at an even tempo rather than in spurts. This also tends to help the fellow relax during the workout.

The balance of the work for the week consists of pace work at distances ranging from one-third to two-thirds of the competitive distance. This helps give the athlete some idea of the various paces he may expect to meet in competition and helps him know exactly how fast the race is being run.

It also gives him confidence in himself and will prevent the fatal bewilderment which besets a runner when a rival goes out at a pace which he doesn't know and which, if he attempted to follow, would "kill" him.

This doesn't necessarily mean that he'll run the race exactly as in practice, for there are many junctures in a race which demand on-the-spot judgment. These points will vary according to the competition and the size of the track (indoors or outdoors).

**MECHANICS OF FORM**

Insofar as actual form is concerned, a relaxed body is a most valuable asset. A great deal can be accomplished toward this end by learning to lift the diaphragm even while walking. This takes a lot of pressure off the legs and permits a freer movement of the hips, which is so necessary in this event. By letting the hips carry a greater portion of the burden, you eliminate the energy-burning hazard engendered by a tense carriage.

The shoulders also play an important role in relaxing both the body and arms, and should be stressed in every workout. To start with, the shoulders should never be raised or hunched in running. Neither should they be held severely back.

The correct position may be taught as follows: Have the boy stand in a

normal position with the arms dangling by his side. Now have him place his hands on his hips without raising the shoulders. Then have him move his hands from the hips, allowing the elbows to come even with the hips.

You'll notice a drop in the shoulder carriage when this is done. But you'll also notice that the shoulders are completely relaxed. They should remain in this position throughout the race. A runner thus trained will find that his body will also remain relaxed and that this will permit more force and greater hip movement to be applied to the finishing drive.

I also believe that a low arm carriage contributes its share to the relaxation of the shoulders and body. A high arm action either raises the shoulder carriage or tightens the muscles in the chest and shoulders, thus definitely restricting the stretch drive.

The forward momentum is definitely curtailed, especially since the runner cannot get the all-important power of the elbow into the back drive of the arm. This back drive with the elbow lifts the weight off the legs and permits the hip and knee to correctly execute their part of the action.

With a high arm carriage and exhaustion setting in, the weight is driven down on the legs—thus preventing them from functioning as freely as they could with a low arm carriage and a hard pull-back with the elbow.

Except for the finishing drive, the forward and backward movement of the arms is limited to an action which brings the hand back as far as the hip and the elbow forward to the hip. During the stretch drive, of course, the arm movement becomes a little more vigorous. The elbow is lifted higher in back, permitting the weight to be lifted from the legs.

One of the easiest deadfalls in middle distance running is overstriding. Most men fall into this error naturally. They feel that an extended leg covers more territory and hence lengthen their stride. What they don't realize is that the lengthened stride consumes more energy; and therefore before long they find themselves unable to cope with the fellow who's running within himself.

The landing is effected on the ball of the foot, with the heel slightly off the ground. The knee isn't raised as much as in a sprint or 440, but must be swung high enough to exploit the loose hip until the finish-

(Concluded on page 70)

FOR COMPETITIVE SPORTS...

ONE NAME STANDS OUT!

# Skinner

FABRICS

For a smart-looking team, outfit your men in uniforms made from Skinner fabrics—you can tell the difference! Not only will Skinner fabrics improve your team's morale, but the way these famous fabrics stand up will help you keep your costs down. Get the best—that's Skinner!

Look for the label in the garment that identifies the Skinner Fabric of your choice.



**Skinner Combat Cloth\***  
Strongest of all Skinner Athletic fabrics. Fast color, light weight, 100% nylon. Favorite for football pants.



**Skinner Tackle Twill\*** fabric. Color and flash, with special stamina for tough wear. Vat dyed, fast color, water repellent rayon and cotton.



**Skinner "B217"** The standard satin for basketball trunks, warm-up jackets and softball uniforms. High luster, vat dyed, fast color, rayon face, cotton back satin.

WILLIAM SKINNER & SONS  
NEW YORK 3, NEW YORK  
\*T. M. Reg. U. S. Pat. Off.



By JOHNNIE GOLDEN, Santa Maria (Cal.) Union H. S.

# Football Charting Aids

**B**ACK in 1948, just after Villanova had trounced a favored Nevada team in the Harbor Bowl game, I was congratulating the winning coach, Jordan Olivar, for the excellence of his team's tackling—the best I had ever witnessed.

Jordan seriously replied, "Johnny, you won't believe this, but that tackling is the result of a grading system—a day-by-day appraisal of every player's efforts. Our psychology is simple. Nobody in any walk of life enjoys winding up at the bottom of any evaluation list, and will expend every effort to reach the top."

At that time, the idea didn't appeal to me. It seemed a bit adolescent. But Olivar hadn't been joking. And since his boys were always tough and aggressive, and backed up all his theories in actual play, you couldn't laugh off his ideas.

In devising my coaching plans for the following season, I made certain that this charting idea was placed at the top of the list. When practice started in September, I began keeping records of every candidate and of every tackle he attempted.

The immediate results were amazing, to say the least. But the real reaction didn't set in until the kids discovered what I was doing. Once they perceived that their efforts were being recorded, they went all out to improve their drive, contact, and follow through.

I quickly discovered that for best results the grading system had to be confined to actual scrimmages and games. The true worth of a player couldn't be ascertained against dummies or tackling machines. While such equipment aided tremendously in improving the fundamentals and in preventing injuries during the pre-game conditioning, it couldn't think. And I wanted to see how my boys reacted against thinking, swift-moving opponents.

Hence, when scrimmages began,

I appointed an assistant to stay close by and tabulate my calls of good or bad tackles.

Thanks to Coach Olivar's advice, our tackling improved 100% the first year. It also led me to believe that the charting idea could also pay off in developing other phases of the game.

At the beginning of the next season, we adopted individual grading on a wholesale scale. In addition to tackling, we began recording blocking, trapping, pulling, double-teaming, kicking, passing, and receiving.

The boys were graded on a 100% marking scale. Our feeling was that an alphabetical arrangement (A-B-C-D) wasn't definitive enough—that it might, for instance, lead a boy with a B rating to feel close to an A player, and thus make him satisfied with his current play. As a result, he might stop "putting out" the necessary effort to fully realize on his potential.

With the numerical scale, the difference between B and A could be set at a given number of points—enough to make the player clearly

aware of the gap. This has worked very satisfactorily, and the numerical scale is still the official yardstick of our grading system.

Our charting is started soon after the first few days of practice. All the boys are given 100 points (100%) on every chart. From then on, they can retain that mark or, by continual incompetence, drop into the lower brackets.

The critical bystander might contend that such a system is too much like a report card, that it will often fail to present a complete picture of the boy. This contention is entirely sound. It was for precisely this reason that we didn't stop with the charting of only the abilities of the player.

Working on the assumption that football involves more than the winning of games or the development of a 95% player, we struck upon the idea of a Personal Adjustment Chart.

This chart serves to measure the boy's entire school achievement. It rates each player in: Classroom and Teacher Cooperation, Team Cooperation, Average in Classroom Studies, Practice Attendance, Training and Conditioning, Competitiveness, Blocking Grade, Tackling Grade, Playbook Knowledge.

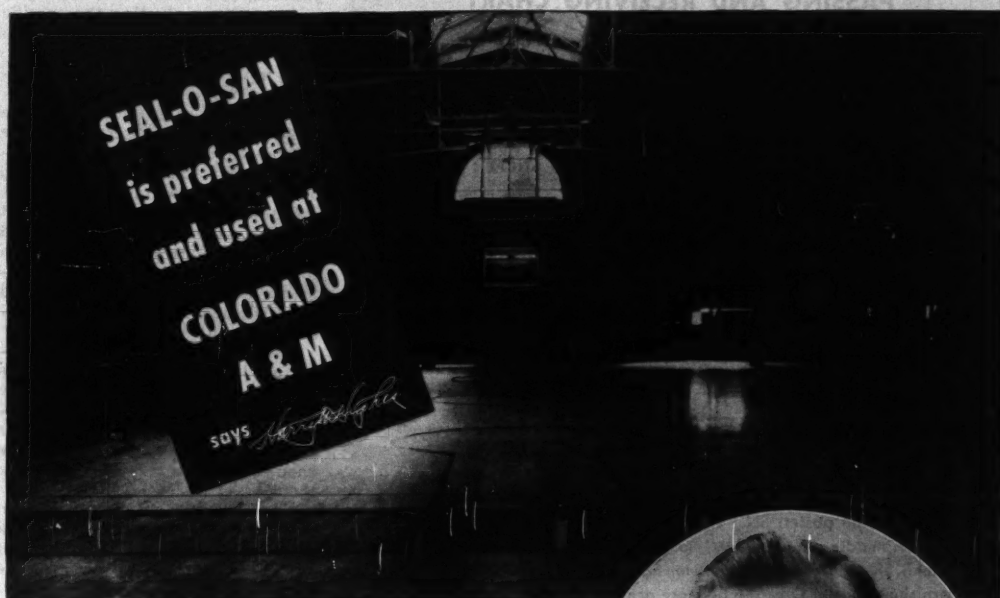
The Personal Adjustment Chart is posted over the coach's desk, and players are invited to view it whenever they wish. The coach never calls the boy in to show him the record, since this would amount to a form of criticism likely to be taken in the wrong light. However, when the boy, on his own initiative,

## MASTER PLAY CHART

PLAY NUMBER	L.E.	L.T.	L.G.	C.	R.G.	R.T.	R.E.	Q.B.	R.H.	L.H.	F.B.
22	Take weak side Tackle	weak side line backer	handle strong side head	strong side backer	take guard head	down field on safety	down field on H.B.	hand to L.H., then fake	fake pitch out	carry ball 22 hole	weak side end
34 COUNTER	down on L.H.	angle back on guard	swirl back on tackle	strong side line backer	guard head	weak side line backer	down on safety	fake to L.H., hand to F.B.	duke fake	carry ball 33 hole	weak side tackle
39 PITCHOUT	down on safety	tackle on tackle	guard on guard	strong side line backer	pull, block 5 side end	tackle on tackle	strong side line backer	fake to F.B., fake to H.B., turn to F.B.	down on left half	fake 22 duke	delay hand for pitch out
L.END AROUND	fake block, carry ball	down on safety	trap on opposite guard	check weak side guard	go to weak position	go to weak position	loop end, guard block 33	fake to L.H., give end	set up block #1	fake carry of 21 yard	fake, take 5-5 Tackle

This chart is always available for player observation, enabling them to pin-point any assignment on any given play. The chart contains every play in the offense.





The beautiful Colorado A & M Fieldhouse floor. At right, H. W. Hughes, Director of Athletics



## "SEAL-O-SAN... an excellent playing surface ...and a durable finish!"

EVERY SEASON . . . in every game . . . coaches and players must rely on their basketball court for sure footing. Seal-O-San provides it! Players can relax on Seal-O-San . . . forget about the floor! The result is a better brand of basketball. That's the big advantage of Seal-O-San. Another . . . the less-costly maintenance that's needed daily or yearly. It's usually just a matter of dust mopping . . . scrubbing becomes infrequent. It's time that you try Seal-O-San. Write for more information today.



### HUNTINGTON LABORATORIES, INC.

HUNTINGTON, INDIANA

TORONTO, CANADA

☐ Send me names of Seal-O-San users in my area.

☐ Please send copy of 1952-53 Basketball Coaches Digest. Free to coaches; others send 50¢ handling fee.

NAME

TITLE

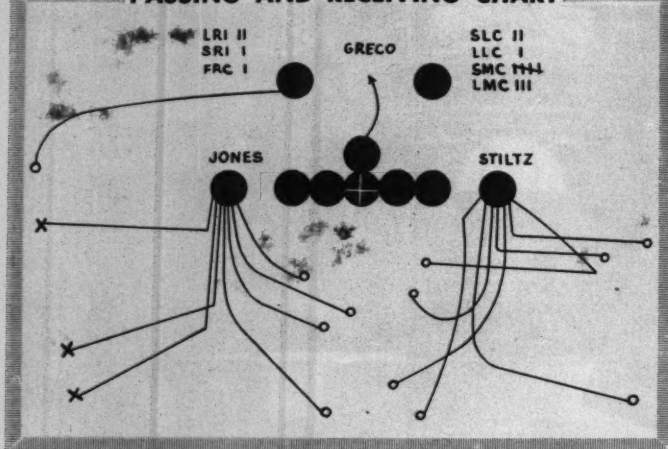
SCHOOL

ADDRESS

CITY

STATE

## PASSING AND RECEIVING CHART



In this chart, the o's indicate completed passes and the x's incomplete ones. The code for the passer: SLC, short left complete; LLC, long left complete; SMC, short middle complete; LMC, long middle complete; LRI, long right incomplete; SRI, short right incomplete; FRC, flat right complete. The above pattern shows passer Greco to be more accurate on short passes. On longer passes, he's either weak or the protection is poor. Perhaps the blockers are not holding their blocks long enough. If this is the case, the passer isn't at fault and the blockers are marked low. The chart also clearly shows right end Jones to be weak on passes to his right, while very strong receiving to his left. Left end Stiltz shows up strong right and left. Naturally, it would be poor strategy to throw passes that call for Jones to cut right. If the opponents reveal a weakness in this territory, the smart thing to do is shift Stiltz to the right end position or employ another end who, according to the charts, is good on outside passes to his right. This same charting system is applied to the halfbacks and full backs when in receiving positions.

takes inventory of his' work, he's forced to ask all the questions.

If Jimmy notices that he's marked low in classroom cooperation, he might ask, "Say, Coach, how come I got 60% in classroom cooperation?" To this, the coach merely replies, "I don't know, Jimmy, the Spanish teacher sent in the report. You'll have to settle with him."

Perhaps Tom has been dogging it at practice and some of the players have complained. Tom is marked low on squad cooperation. When Tom complains of his grade, the coach gives the same answer, "You'll have to see the team captain and get it squared away. Come back when you've settled the differences and I'll change that mark."

A thorough study of this chart gives the boy a good accounting of himself and yet puts him under no pressure to correct his mistakes. That's up to him. If he's a real gentleman and interested in staying on the squad, it's a sure bet he'll try to improve his ratings. If not, he'll

probably sit on the bench—due to his own condemnations, not those of the squad or the coach.

The coach never has to criticize, condemn, or decide the issue. This keeps player-coach association on a solid basis, an association which must always strike a happy medium if any degree of success is to be expected. It's easy to see how such a chart could serve as a teaching aid in most any field.

### OTHER SKILL CHARTS

Since modern football is a wide open game, with emphasis on passing, it's important for the coach to discover his best throwers and receivers as quickly as possible. I feel that charts, properly kept, will furnish the fastest and truest answer to this problem.

This is especially worth trying if you're new on the job and lack records of the boys' past performances. If the squad is extremely large and platoons of specialists are being

planned, such charts will assist you in hurriedly evaluating the specific abilities of the individuals or the individual groups.

As in tackling, the merits of passers and receivers must be determined under game and scrimmage conditions. Many passers throw the ball away, have no sense of split-vision, can't run out of traps, slip out of their blocking pockets, etc.

Likewise, receivers are lax at pivoting, cutting, decoying, and most of them are weak on reception to one side or the other. Such weaknesses add up to lost ball games and must be checked at the earliest possible moment.

Since mental notes are easily forgotten, I use a chart similar to the one shown. Such a chart, carefully planned and analyzed, assists immensely in determining who your thrower should be, to whom he should throw, and where to throw them!

No difficulty is encountered in compiling a kicking chart. The lack of distance and height, so important to most coaches, is the least of the faults to look for. The errors to pinpoint include: eyes on the ball, body control, time consumed in kicking, position of the balance foot, kicking into protected areas, and many others. (Coaches interested in a listing of kicking faults and their correction are referred to my article in the October 1948 issue of *Scholastic Coach*.)

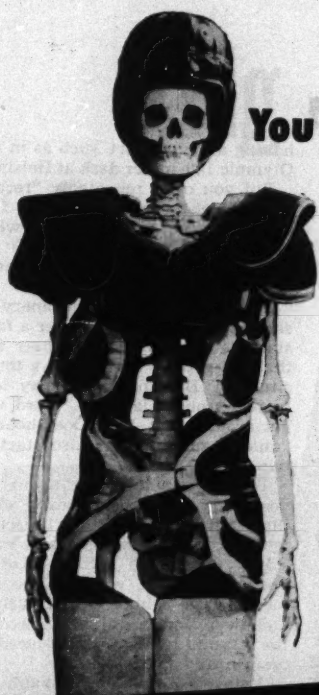
Close observation by the coach can easily spot kicking errors, since nearly all of them stem from the breaking of a natural body movement. Once again, these gradings should be made under game and scrimmage conditions. Plenty of boys who can punt beautifully with nobody harassing them will disintegrate under pressure.

### GAME PLAY CHARTS

Though game charts are commonly employed by colleges and pros, few high school coaches avail themselves of the help they have to offer, especially during the half-time break. The writer strongly recommends them.

Where these charts show the continual failure of certain plays, it's a smart idea to drop them from the offense. If, on the other hand, the charts reveal certain plays to be consistently successful, then these plays should be called upon more often. A careful study of these successes and failures will clearly indicate which plays need polishing.

The charts will also reveal how many plays your team can average  
(Concluded on page 61)



**You pay \$200 for 50% protection...\***

**Why not 100% protection  
for only \$2.00 more?**



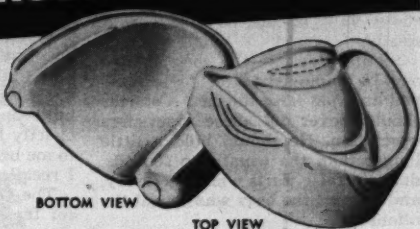
## **Protect Your Players 100% with the VOIT Custom Safety Mouth Protector**

\* Statistics show that over 50% of all injuries in contact sports are of the lip, tooth or jaw concussion type. The Voit Safety Mouth Protector not only guards against broken teeth, split lips, tongue and cheek lacerations, even fractures and dislocations of the jaw; it also cushions the shock of blows to the lower jaw that sometimes cause knockout, brain concussion, subdural hemorrhage, even death.

Since 1939 the California Interscholastic Federation has paid over \$1,000,000.00 for professional services rendered to boys injured in athletics. 38 CENTS OUT OF EVERY DOLLAR HAS BEEN SPENT FOR DENTAL REPAIRS! On the 23 test football squads that wore the Voit Custom Safety Mouth Protector, not one tooth, jaw or concussion injury was experienced by the players in two years use!

Designed by a dentist, the Voit Protector is the finest available at nominal price. Four sizes to fit all players. Fitting guides available and complete custom fitting instructions come in every plastic carrying case. Your trainer can custom fit your entire football squad in two hours, although it is recommended that the protectors be fitted by a dentist.

Made of soft, wintergreen flavored rubber. Fits over the upper teeth. Comfortable to wear. Stays in place for mouth breathing, spitting or speaking. Available at your Voit Sporting Goods Dealer, or ask your school dentist.



**The Voit Safety Mouth  
Protector is a must for 100%  
team protection—gives every  
player the confidence for better  
heads-up play.**

**VOIT®**  
NEW YORK 10, CHICAGO 10, LOS ANGELES 11  
*America's Finest Athletic Equipment*



# On Marks, Get Set, GO!

**S**TARTERS must never let personalities or friendships influence their performance. Since I've had the pleasure of starting the great Harrison Dillard in many races, I've often been asked whether his presence ever upset me and just what I'd have done if he ever took two false starts.

My answer is that Dillard's presence never upset me. On the contrary, it stimulated me. At the same time, I'd have unhesitatingly thrown him out of any race in which he took two false starts.

I might mention, however, that Dillard never took a false start in the 25 or more races I started him. He's definitely one of the steadiest athletes I've ever worked with. The only difficulty I've had in his races stemmed from over-eager opponents looking for a nice roll-lead to aid them in beating him.

When the boys time their starts perfectly and break with the gun, you may have to recall them a few times. Ingenuity may be required to handle the situation. When necessary, you can, by holding the boys a little longer than usual (a little over two seconds), put a stop to the extra gun shooting. With a false start hanging over their heads, about 95% of the boys will hold steady.

Similar tactics—the long hold—may be employed against “guessers” and habitual false starters. A starter should never let these characters upset him. He should hold a little longer than the usual two seconds, dole out false starts when necessary, and toss out the boys who repeat the offense.

One of the starter's minor duties is firing a gun to indicate the final lap of a race. This is a good time to use up any smokeless shells you might have acquired.

I received a large quantity of smokeless shells right after World War II and, though given the opportunity to return them to the manufacturer, I kept several packages for gun-lap purposes. I've found that they don't smoke up the gun and will make just as much noise as the black-powder shells.

According to the official rules, a starter must not only see that no one beats the gun but, insofar as he's able, that all competitors get an even start.

having an even start, such as in the Olympic 100-meter dash at Helsinki.

But you can't repeatedly “recall” when this doesn't happen, as frequently occurs, especially when large numbers of athletes are involved. Such procedure could easily lead to complications.

A popular bit of chicanery is shooting a “quick” gun after a false start or two. The starter may feel that it's getting him out of a tough situation. But this habit may lead to real trouble later on. Word will get around that John Doe shoots a “quick” gun after a false start or two.

The boys will worry about the possibility of not being ready when the pistol is shot, and they'll become nervous, jittery, and unsteady. False starts, unless the starter shoots a very quick gun, will become numerous. The calmness, deliberation, and deep concentration desired at the starting line will be replaced by tension and frustration.

A starter of this type probably has a two-fold purpose in mind: To get the race underway somehow and to avoid the possibility of tossing one or more of the runners out of the race for infractions of the false start rule.

No starter should permit the boys to distract him into altering his technique. The responsibility definitely rests with the athletes. It's the duty of the coach to place into the starter's hands boys who are well-controlled and properly trained in the fine points of starting.

Every starter should be more than just present when the boys are adjusting and setting their blocks. He should always instruct the boys to set their blocks in a manner that, when on their marks, will prevent any part of their bodies from touching the starting line or the track in front of this line.

Present-day sprinters and hurdlers “bunch” more than in past years. They're looking for every little advantage they can get at the start. They creep closer and closer to the starting line. Since this line is measured within the course, it's part of the race and boys shouldn't be permitted to touch it with any part of their anatomy.

I tell the runners that the starting line is comparable to the foul line in basketball. If a free thrower touches

## Part 2 on the mechanics and art of track starting

Just how far a starter should go on the latter score, I just don't know. I can relate an experience along this line that happened two years ago. I was starting a college dual meet between two friendly squads from Ohio Wesleyan and Ohio University. Each school had a top-notch high hurdler, and I was anxious to see that both boys got an even shake at the start.

When I fired the gun, the Ohio U. boy just sat there on his blocks. He didn't move until the other hurdlers had taken a couple of strides and built up a 6-8 foot lead. Nothing exactly like this had ever happened to me before. But without hesitation I recalled the runners.

The Ohio U. boy had been ready for the start, but somehow couldn't respond to the gun. Naturally, he deeply appreciated a second chance. The Wesleyan boy, a real sportsman, also favored the recall. And he won the race, though the Ohio U. lad got a fine start on his second try.

In this instance, at least everything worked out satisfactorily. But I don't believe that a starter should make this a habit—recalling whenever one or two runners respond rather poorly to the gun. The ideal is to get them away with everyone

By **PAUL R. KELLER**

*Veteran Starter, Prospect, Ohio*

**Big  
League..**

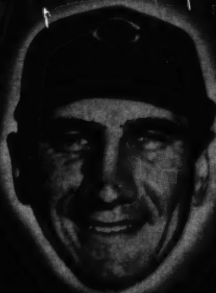
**. Performance**

**built into  
every model . .**



*Ralph Kiner*

Tied for Major League Home Run honors with 37.



*Hank Sauer*

Tied for Home Run honors in Majors with 37. Voted most valuable player in the N. L.



*Ferris Fain*

Won A. L. Batting Championship for the second consecutive year.

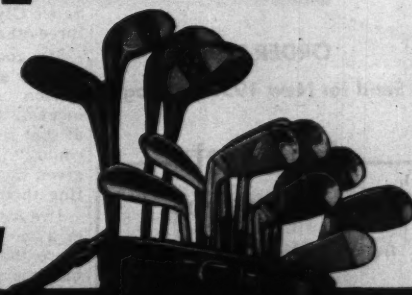
**The Choice of the Champions**

**LOUISVILLE  
SLUGGER  
BATS**

**for Baseball  
and Softball**

LOUISVILLE SLUGGER  
BATS  
HILLERICH & BRADSBY CO.  
LOUISVILLE, KY.

Send for free full color catalogs.  
Address Hillerich & Bradsky Co.  
Louisville 2, Ky., Dept. 5C



## REMINDERS FOR SPRING

New! Sensationally Low Priced!



THE  
ARIDYE  
"A" Line  
of White  
Game  
Jerseys  
in Cotton  
Durene  
and Rayon,

featuring Sleeve Stripes and Numerals



FOOTBALL PRACTICE JERSEYS



SOCKS • T-SHIRTS  
SWEAT SHIRTS  
PHYSICAL ED  
UNIFORMS



ORDER NOW

Send for New 1953 Catalog

Buy Direct

MANUFACTURERS

from yarn to finished product

Champion Knitwear Co.

Rochester 4, New York

this line, his shot, if made, is nullified.

A starter should never send the boys to their marks before determining whether or not they're in proper position with respect to the starting line. It's unfair to call the boys up and have them standing around while Bill Henry re-sets his blocks. The starter should tend strictly to business and watch for these things. He should leave socializing to the spectators.

When a starter who's working a dual or triangular meet is new to one or more of the teams, he might save himself a lot of trouble by employing the stunt I use in this situation.

Most of the college meets I work begin with an 880-yd. relay. I always advise the coaches to have their runners, especially the sprinters and hurdlers, watch closely how I start this relay. If they see that you know your stuff—that you're giving the boys plenty of time to get on their marks and then holding them in the "set" position until all are ready—you'll find smooth sailing the rest of the way.

I followed much the same pattern last spring when I contracted for my first Ohio State dual meet (against the strong U.S. Air Force squad headed by Mal Whitfield). Since I wasn't much of a "name" to many of the competing athletes, I paid a visit to one of the practice sessions of the two squads (they trained together at Ohio Stadium) so that they could observe my work.

After they "tried me out" a few times by attempting to get by with a roll, the boys settled down to working with instead of against me. The end result of this little practice session was one of the easiest and most enjoyable meets I ever worked. Not a move out of the boys all afternoon despite the keenness of the competition! (Four boys in the meet eventually wound up on Uncle Sam's Olympic squad, while two or three others just "missed the boat.")

My good fortune, I believe, was directly attributable to that practice session. Any testing and experimenting with the starter took place at that time. The boys learned they couldn't roll and that they'd be given an equal opportunity of getting their best starts.

I've frequently been asked whether a starter can call a false start on more than one competitor when a break is made without the gun being fired. The answer is yes, a starter definitely CAN call a false start on more than one individual under these conditions. However, this isn't good practice unless all the boys

**T**HIS is the second of two articles by Paul R. Keller, a former high school coach who's now one of Ohio's busiest track starters. The Prospect, Ohio, veteran handles some of the biggest meets in the Buckeye State, including the Ohio Wesleyan Relays, the annual Ohio Conference Meet, the All-Ohio College Meet, and numerous other college and high school affairs. In his initial installment last month, Mr. Keller presented a detailed analysis of the actual mechanics of the art.

thus charged come out of their blocks "simultaneously."

Webster defines this word as "happening, done or existing at the same time." Therefore, as long as the word *simultaneously* or some similar word is found in the track rule book, I'll never call a false start on more than one individual if I can discern a difference in "breaking" time.

When unable to determine, in a multiple break, which boy moved out first, the starter should charge all of the runners who broke together with one false start. I've seldom called a false start on more than one boy, since the fellow who breaks first is responsible for "pulling" the other boys out of their blocks.

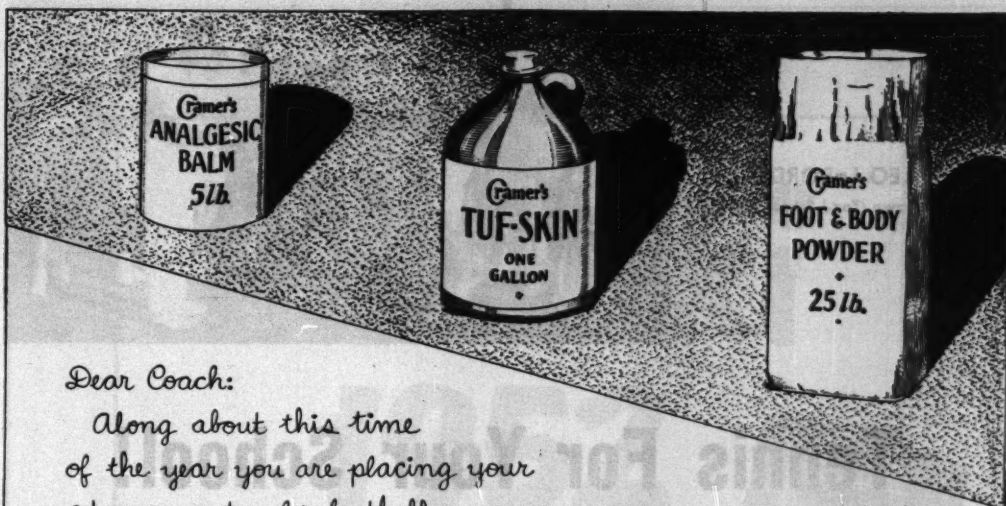
In conclusion I'd like to summarize the most important do's and don'ts of track starting.

### DON'TS

1. Don't take up track starting unless you plan to perfect yourself at it.
2. Don't enter the track season without thoroughly preparing yourself with rule book study and actual practice.
3. Don't use inadequate starting guns or other poor equipment.
4. Don't run your show in a highly keyed up, emotional and excitable fashion.
5. Don't fail to give adequate instructions to runners just prior to the start.
6. Don't talk in a fast or loud manner when giving these instructions.
7. Don't attempt to put one over on the boys by telling 'em you'll "hold" and then shoot a "quick" gun.
8. Don't hold less than about 1.7s.,

(Concluded on page 65)





Dear Coach:

Along about this time of the year you are placing your advance order for football.

It is only logical that you consider ordering your Cramer Supplies at the same time.

There will be an advance on Parcel Post effective April 1, and the department has asked for an over-all raise of 35% at a later date!

When ordering, please keep in mind that there is a saving of approximately 40% when you purchase the larger sizes. We save on labor, jars, labels and corrugated paper cartons—and we pass this saving on to you!

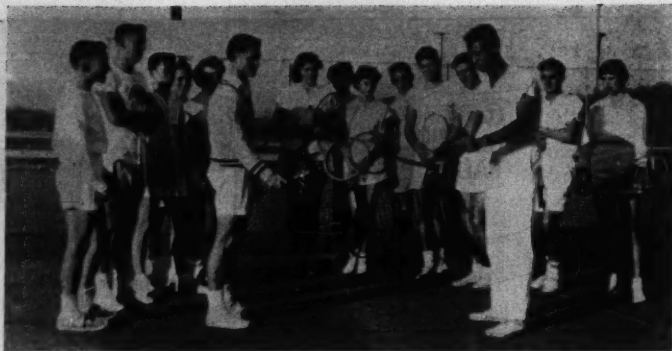
Cordially yours,  
The Cramers of Gardner, Kansas



Get these and other Cramer Products from your favorite sports store



By LEO LaBORDE  
Coach, Baytown (Tex.) School System



## Tennis For Your School!

**B**AYTOWN, Tex., takes pride in being considered one of the newest, strongest, and most rapidly developing schoolboy tennis powers in the Southwest.

Though starting from scratch only five years ago, Baytown has developed no fewer than 12 individual state champions, as well as numerous team victors in district, regional, and tournament competition. What's more, its players have made fine showings in some of the leading national tournaments.

Following is a box score of some of our outstanding achievements:

Bob Middleton and Rollin Russell won the state interscholastic doubles title in both 1951 and 1952—a feat accomplished only once before in Texas history (1933-34).

Russell also won the state TAAF junior singles crown (18 years and under) in 1951 and was runner-up in 1952.

Billy Williams grabbed top honors in the Texas state boys' singles (15 and under) and paired with Bill Dixon to win the state boys' doubles title in 1952, while both boys were attending Horace Mann Junior High.

In the national rankings, recently released by the USLTA, Williams is ranked 15th in boys' singles, while he and Dixon are given the number 12 position in boys' doubles.

Tommy Roberts and Don Fuller won the boys doubles in both the state junior development tournament and the state TAAF tourney in 1951.

Robert E. Lee High School has captured six out of a possible 12 dis-

trict championships during the past three years.

Our tennis program has mushroomed so rapidly and so gloriously that we find ourselves asking, "Just why have we been so successful in such a short time?" What follows is an attempt to answer this question—to describe our system with emphasis on the points of particular value to other schools and coaches.

Upon arriving at Baytown five years ago, the writer was tremendously impressed with the wonderful facilities available for tennis. Each of the two junior high schools had four tennis courts, the senior high also had four courts, and three more excellent courts were avail-

able in the local refinery area. Yet there was no semblance of a tennis program!

Horace Mann Junior High became the cornerstone of a building program. With four fine courts on the school grounds, there was no reason why tennis couldn't be made part of the regular physical education course.

The first and most important step was to get the students *interested* in playing. The instruction could come later. In other words, the child had to be taught to crawl before it could learn to walk.

With this in mind, our initial step was to make rackets and balls available to all physical ed students. This was deemed essential to give everybody a chance to play the game, develop an interest in it, and practice it.

Where you confine the game to racket-owners, you freeze out the many kids who cannot afford their own equipment. And for all you know, you may be freezing out a lot of potential championship talent—which isn't the important thing, however.

The important thing is getting as many kids as possible interested in this fine sport, which carries over so beautifully to adult life. Another objective is reaching some of that vast group of students who aren't participating in any extra-curricular activities.

Furnishing the equipment gives everybody a chance to get the feel of a racket, to hit the ball around the court, and to develop an interest in the game.

**T**HE man behind the amazing Baytown, Tex., tennis story is Leo LaBorde, a former U. of Texas net star who's still one of the leading tournament players in the Southwest. A full-time physical education instructor at Horace Mann Jr. H. S., he also serves as tennis coach for Robert E. Lee Senior H. S., Baytown Jr. H. S., and, of course, his own school. It was LaBorde who introduced tennis into the Baytown school system and who's been most responsible for its sensational success. *Racquet Magazine* has this to say about him: "Leo has a great love for tennis, patience to teach beginners, and a contagious personal enjoyment that affects all the pupils coming into contact with him."

# Helsinki 1952

## Why U.S. Olympic Teams "Strap with Seamless Pro-Cap"

● "Less clean-up with Seamless Pro-Cap"... "Comes off roll well"... "No more benzine baths for my boys." That's what leading trainers say.

Want a tape that comes off roll, stays on skin... a tape with a rubber mass that sticks to its backing, and not to the athlete... a tape that contains the fatty acid salts, zinc propionate and zinc caprylate, and causes little or no skin irritation after long strapping? If you do, give Seamless Pro-Cap a 6-tube trial.

There are three grades of Seamless Pro-Cap. Regular—For strong support. Sportape—For light taping. Husky—For utility purposes. Use the right Seamless tape for the right job—you'll save money—you'll never use ordinary tape again.



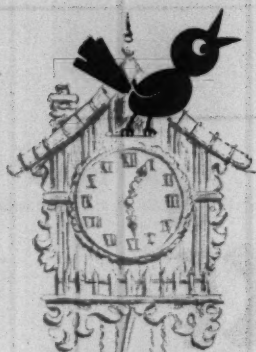
Send for  
Your Copy of  
**Strapping Booklet**

● Revised printing of Ed O'Donnell's "The Strapping of Athletes". Forty-five taping problems with illustrated strapping techniques by Yale's famed Physical Therapist. Training tips and hints. A 'must' for the trainer's black bag. A limited printing. Price: 50c

FINEST QUALITY SINCE 1877







**PLACE YOUR ORDERS  
EARLY**



There's nothing that makes coaches so mad as to have athletic equipment delivered late. Everyone knows this—particularly your Sporting Goods Dealer and the Manufacturer of Athletic Goods.

But Dealers, even with their years of experience, can't guess exactly what equipment all the schools are going to need.

Although Dealers stock hundreds of items, when orders are placed late, difficulties arise. Many items are made on special order. Dealers, of necessity, must place orders with manufacturers well in advance. Manufacturers, in turn, must plan their production and purchase raw materials many months in advance.

It is easy to understand how a flood of late orders can wreck delivery schedules. Most manufacturers and dealers fill orders on a "first come, first served" basis.

So remember . . . When you start to plan your athletic equipment needs for the next season:

It's easy for Dealers and Manufacturers to give you exactly what you want if you will remember that it takes time and planning to manufacture the quality sporting goods you want.

For the best results—order early.

The Sign of a Specialist in Sports



**NATIONAL SPORTING GOODS  
ASSOCIATION**

1 North La Salle Street Chicago 2, Illinois

There are various ways in which to fire the kids' imagination. One of the best is to let them see outstanding players in action. Have these players put on an exhibition during the lunch hour and after school. It will get a lot of your students interested in the game.

Tennis films offer another wholesome stimulant, and these may be shown during the tennis unit in physical education classes. Exhibitions between good adult players may also be planned for the school courts. Nearly every community boasts a number of such players who'll be glad to do this for you.

After the students have banged the ball around the court and discovered that they like the game, they'll be ready for technical instruction.

Since Baytown has an ideal climate for a year-round tennis program, most of the instruction is given in the fall. At Horace Mann, the best players are placed in the last period gym class—as are the football, basketball, and other athletes. This gives the coach a chance to work with his group whenever necessary.

During the fall sessions, two periods are spent on the forehand, two on the backhand, one on the serve, and one on the net and court positions. While half the group is being instructed, the other half is playing.

After this, a beginners' tournament is held for both boys and girls, with tennis balls and other suitable prizes being awarded the winners. Class tournaments are held later on to determine the best players.

Here the scholastic intramural tennis tournament sponsored by *Scholastic Magazines* have proved extremely useful in promoting and incentivizing the program. Awards and draw sheets are furnished without charge, and absolutely no red tape is connected with the offer. (School men interested in such tournaments should refer to the announcement on page 58 of this issue.)

As tennis coach for the Baytown school system, I spend one afternoon a week at Baytown Junior High and two afternoons a week at Robert E. Lee H.S. Twice a week is enough to keep the senior group playing fairly good tennis, while still allowing them plenty of time for other extracurricular activities.

As winter comes on, the tennis periods are employed for further instruction and the correction of faulty strokes. Doubles are prescribed as often as possible, since they improve the students' service, net play, and aggressiveness.

Moving pictures of the players are taken to indicate their errors and to stimulate their interest. Other instructional films, obtained from state universities, sporting goods manufacturers, and other sources, also prove helpful to the tennis group.

A round-robin is started in February. From this meet, a tennis ladder is set up and players may challenge those ahead of them. Since the district meets get underway the first week of April, this gives us two months in which to determine the best players to represent the school.

Our interscholastic matches are arranged for February, March, and April; and a high school invitation tournament is scheduled for March. The March invitational serves both to give the players valuable tournament experience and to promote the sport in the area.

Mention must be made here of the fabulous "Hearts Delight Tennis Tournament" held every February in Fulfurrias, Tex. One of the largest meets of its kind in the entire nation, it attracted 193 athletes from 32 high schools last year.

#### **TOURNAMENT SEASONING**

Tournament play is a great aid in building winning teams. The more meets a boy participates in, the quicker he'll acquire the ability to relax under pressure and to take important matches in stride.

Another excellent aid to varsity players is observation of the topnotchers. Every year we take our players to nearby Houston for the famous annual River Oaks Invitation Tournament. Some of the brightest net stars in the nation compete in this tourney, and our players receive the highest inspiration from watching them.

It goes without saying that the cooperation of the administration and faculty is vital to the success of any tennis program. At Horace Mann, we've been fortunate in this respect.

Principal W. D. Hinson has proven extremely helpful in placing the players in the same classes and in giving recognition to the team at assembly programs and athletic banquets.

Our football coach, George Perkins, has also been cooperative in his attitude toward tennis and in accepting it as an essential part of the school program.

Teachers have also assisted by allowing the tennis players to write papers and make reports on the va-

(Concluded on page 63)

# 1029 YEARS EXPERIENCE

IN MODERN

FLOOR MAINTENANCE

*On Your Staff  
Not Your Payroll*

*Hillyard*

offers you a "giant" source of floor treating knowledge. Hillyard trained floor experts, the men in the field who serve you, are truly maintenance engineers as the name "Maintainer\*" implies. They have amassed the amazing total of over 1000 years of experience with Hillyard. Visualize the training and experience of over 100 Hillyard "Maintainers" bringing together modern methods and finest specialized Hillyard products for every type of floor.

These "Maintainers" are strategically located from coast to coast and provide fast, efficient service from warehouse stocks in principal cities. Depend on him for beautiful safe floors that wear longer—give you the most from your floor treatment budget.

\*Registered

SERVING THE BUILDINGS OF  
THE NATION SINCE 1907

There's a "Maintainer" near you.  
Write today.

... He's on your staff not your  
payroll.



St. Joseph, Missouri  
U. S. A.

Valuable organizational and administrative pointers by the director of the El Cerrito Relays

# Track Meet Management

By HALE ROACH

Track Coach, El Cerrito (Cal.) H. S.

**T**RACK has pretty tough going in many areas, and a lot of scrambling is required to keep it out of the crimson. The fact that many meets are conducted in slipshod fashion certainly doesn't help. With spectators, first impressions last; and customers taking in their first meet will recoil from a sprawling, dull, never-ending procession of events.

The way to the spectator's heart—and wallet—is through organization. This implies not only a meticulous time schedule but that vital quality known as color plus the careful policing of both the athletes and the spectators.

Having managed both the El Cerrito Relays and our league meet for several years, I believe I can offer a few practical ideas to both experienced and beginning meet directors.

One of the most essential requisites for a good meet is adequate officials. We've been fortunate in getting plenty of officials, and as a result our meets have always been run with a minimum of confusion.

Our officials are recruited from three sources. First is our own faculty and administration. (Nearly every school has a few faithfuls, and to these men be forever-grateful.) The second source is former students, particularly track men, and the third source is coaches from nearby schools.

Thanks to these volunteers plus recruited student help, we've been able to handle our meets smoothly and efficiently. We've found that it takes a minimum of 41 officials and 45 student helpers to properly conduct a meet. This may be broken down as follows:

## REGULAR JUDGES

No.	Duty	No.	Duty
1	Referee	1	Head Finish Judge
2	Announcers	8	Finish Judges
2	Scorers	4	Inspectors
2	Starters	3	Shot Put Judges
3	Clerks of Course	3	Discus Judges
4	Timers	2	Pole Vault Judges
3	Bd. Jump Judges	1	High Jump Judge

## STUDENT HELPERS

No.	Duty	No.	Duty
12	Hurdle Crew	4	Starting Blocks
10	Marshalls	2	Shot Put
3	Discus	2	High Jump
2	Pole Vault	2	Broad Jump
2	Finish Tape	2	Runners
1	Baton Boy	3	P.A. System

Everything possible should be done to welcome the officials. If the meet is an afternoon affair, a light pre-meet lunch is in order. If the meet is an all-day event, a lunch is a must.

It's always wise to contact your officials at least a month ahead of time. And it pays to have three or four extra men available, since in a group of this size somebody is bound to back out at the last minute. After receiving their okay's, send them a reminder—plus two complimentary tickets—a week before the meet.

Great care should be exercised in choosing certain key officials. At least one experienced man should be at each field event. Probably the most important posts to fill are the three clerks of course. These men, along with the starters, are responsible for the smooth conduct of the meet.

We've set up a "bull pen" at one end of our field, where benches numbered from one to eight are placed. Each bench represents a lane and the teams sit in their proper places until called to the starting line. Last year we built a large sign to enable the competitors to find their places quickly and easily. This eliminated the last vestige of confusion.

At the "bull pen," two of the clerks place the contestants in their lanes. After the boys are given their instructions, one of the clerks delivers them to the clerk at the starting line. The latter puts them in

their lanes, and when all are ready gives the okay to the starter.

When relay runners must line up in passing zones away from the start, the inspectors see that they're properly positioned. When all are ready, the inspectors wave a white flag. They also carry a red flag, which they immediately wave whenever a foul is detected. As soon as the race is over, they report to the referee.

For shuttle hurdle relays, the "T" type barrier is recommended. This permits the teams to run up and down the same lane, thus making it possible to run eight (instead of only four) teams on an eight-lane track. This not only speeds up the meet but makes for a better race.

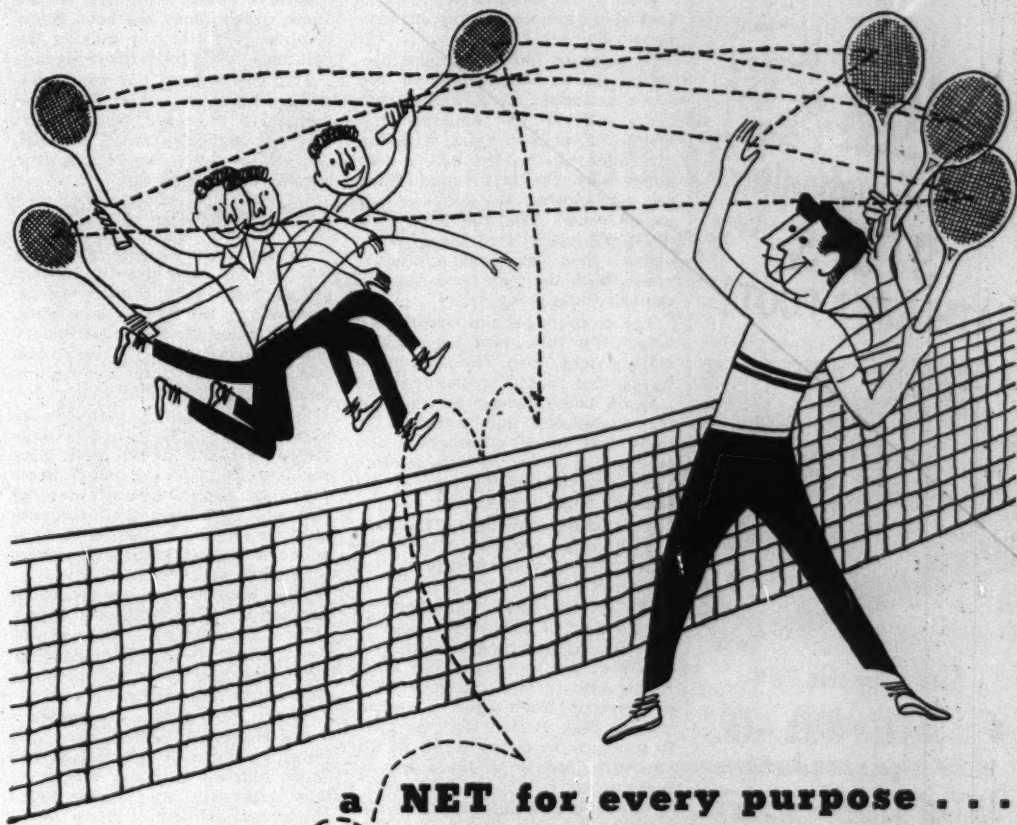
It's also a wise idea to station a boy on each side of the track alongside each flight of hurdles. From this position, they can easily dash out and set up any overturned hurdles.

The "pin boys" at the last flight must be pretty agile. By the time they set up an overturned hurdle, the touched-off runner may be swooping down on them. If they see they can't get back in time, they should kneel close to the hurdle until the runner has gone by.

Insofar as the touch-off is concerned, we've adopted a suggestion made by Tom Deckard of Iowa U. The judges firmly grip the rear heel of the waiting athletes. As the approaching runner crosses the line, the heel is released and the runner starts. This facilitates the judge's job, enabling him to determine fouls more easily and eliminating the danger of missing a tap-off.

With large entry lists, it frequently becomes necessary to speed up the field events. There are two ways of expediting the high jump and pole vault. First, limit the number of entries per school; and, second, start the bar high enough and then raise it enough initially to eliminate those entered "just for experience."





a **NET** for every purpose . . .  
a **PURPOSE** for every net

*What Kind of Sports Nets Do You Need?*

- Budget-priced nets of good quality?
- Medium-priced nets for long wear and economy?
- Top-quality nets with mildew-proof bindings?
- Finest nets available with Net-True bracing?

We have *all* kinds of Gold Medal Sports Nets tailored to meet the requirements of *any* sport or any pocketbook. If you want a special made-to-order net, we'll supply that, too.

Makers of fine nettings  
for 111 years

*Gold Medal Nets*  
THE LINEN THREAD CO., INC.  
418 GRAND STREET, PATERSON 1, N. J.

New York 17, N. Y. • Baltimore 3, Md. • Boston 10, Mass. • Chicago 10, Ill. • San Francisco 5, Cal. • Gloucester, Mass.



# ONOX<sup>®</sup>

## Skin Toughening

### STOPS

#### ATHLETE'S FOOT!



That's why over 70%



of the largest manufacturers

and many school systems

## USE ONOX

in shower rooms!

✓ **NO TROUBLE TO USE**

No splash, no mess, easy to maintain. Nothing to get out of order.

**MAKE 60 DAY TEST**

We will ship trial order for any amount of ONOX and footmats. You say nothing unless fully satisfied after 60 day test.

✓ **TOUGHENS SOFT SKIN**

Main cause of Athlete's Foot is

Shoe - Softened Skin (U.S.P.H.S. Bul. R-674).

ONOX mineral salts toughen soft skin and make it resistant to fungus growth.

## ONOX, INC.

121 SECOND STREET  
SAN FRANCISCO 21, CALIF.

Warehouses: BROOKLYN, CLEVELAND,  
NEW ORLEANS, HAWTHORNE, CALIF.

Some of our methods in the other field events are also worthy of mention.

In the broad jump, the judge, just before the scheduled time of the event, assembles all the contestants for a roll call. He explains that they're to jump in pairs, with the two boys alternately taking two jumps each the first round. Each boy gets another two jumps on the second round. The five boys with the best jumps (we award four places) then get three additional jumps, with the man recording the shortest jump going first.

The three judges and two student helpers for this event keep things moving right along. The head judge sets up his recording stand at the take-off board, where he calls off the contestants and watches for fouls. The other judges hold the tape and measure each fair jump. They always read the tape at the take-off board, not in the pit.

One helper smooths out the sand and the other operates a large indicator (showing the best jump) for the spectators.

We've often been complimented on the way we administer the shot put. Here again we use the pair system with the two men alternately taking two throws apiece. Instead of measuring each throw, however, we use pegs so that we only have to measure the better throw of the two. This speeds up the event by many minutes.

The head shot put judge calls the names and watches for fouls, while the other two judges peg the throws and then measure. Here, once again, the tape is always read at the throwing end. The student helpers return the shots and keep the area raked and smooth.

Since both athletes and fans can seldom judge distance in the shot put, we lay down arcs (with lime) in the throwing area. These lines, when prominently marked for distance, greatly stimulate interest in the event. Flags marking the meet record and world record also aid the event.

A nearby practice area is provided for warm-up purposes. Once the meet starts, absolutely no practice throws are permitted in the event area.

The discus is conducted in much the same manner as the shot put. The pair system is again used and all throws are pegged. If the entry list is extremely large, it might be well to divide the group into two for the four preliminary throws.

After the first group is finished, pull all but the first five pegs—since these are the only ones with a

chance to reach the finals. In the finals, always have the boys throw in order, with the boy making the best mark in the trials throwing last.

The financing of our meet constituted a problem at first. We solved it quickly, however, and haven't had any difficulty since. In fact, we've been able to build up a little surplus every year.

### FINANCING THE MEET

We obtain our revenue from three sources. An entry fee of 50¢ per athlete represents the mother lode. Next, we get interested school clubs, service clubs in town, merchants, and business men to sponsor events and buy the trophy for the winning team. This helps tremendously.

Our third source of revenue is the gate receipts. To attract large crowds, we keep the admission price real low. We admit our own students free and charge everyone else a flat two bits. That's why from the very start we've tried to finance the meet as much as possible through sources other than gate receipts.

Since awards make fine incentives and attract large fields, we offer a large number of them. We now present a trophy to each winning relay team, plus ribbons to the members of the first four teams.

In the field events, we award a small trophy to each winner and ribbons to the next three places. The team winning the meet championship receives a large trophy, while the second and third place teams receive smaller trophies. A very popular award with the coaches is the engraved pen stand for the winning mentor.

Publicity for the meet is improving year by year, as sports editors note the steadily increasing number of competing schools. (It's always smart to get entries from as many schools covered by the paper as possible.)

A publicity director is a great help, and it's wise to get one who's close to the meet manager, since the latter is the fellow who always knows what's going on. In our meet, the publicity is handled by the meet manager.

A popular feature with our students is a "Queen of the Relays" contest, in which a queen and three attendants are selected by popular vote. These four girls present the awards to the athletes.

A Victory Stand, highly popular with the contestants, is available for this ceremony; and the awards are presented as soon after the event as possible. We always get a lot of

(Concluded on page 57)



## "the perfect pivot"



**TIMING**—pivoting, whipping the ball to "first" for that "twin killing" makes speedy, precision play a top requirement. Baseball demands stamina, muscular control, steady nerves . . . and it calls for the comfortable, sure support of a Bike Supporter. Tiring strain caused by the lack of a good supporter can be the source of expensive errors. So all coaches in every sport know the value of a good supporter in preventing strain in the vital zone.

Bike Supporters, designed with the help of leading athletes and coaches, help give your players the lasting stamina that keeps them in there to the fighting end. There's a Bike support for every sport. Make sure your athletes wear Bike! The facts speak for themselves—more athletes have worn Bike than any other brand.



**BIKE NO. 10 SUPPORTER** with form-fit knitted cotton and rayon pouch. First choice of coaches and athletes. Soft, flexible 3" waistband, 1" leg bands. Also sized for Little Leaguers.

# BIKE<sup>®</sup>

***sold only at sporting goods dealers***

## THE BIKE WEB COMPANY

309 W. Jackson Blvd., Chicago 6, Illinois





# NEW EQUIPMENT

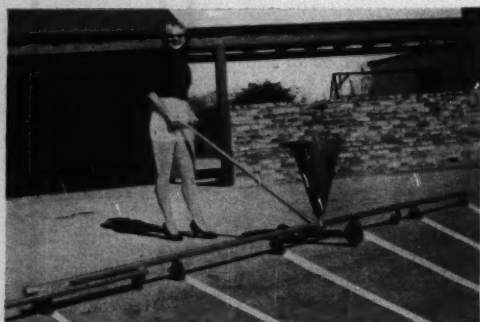
For full details on any of these products, write to: Scholastic Coach,  
New Equipment Department, 351 Fourth Avenue, New York 10, N. Y.



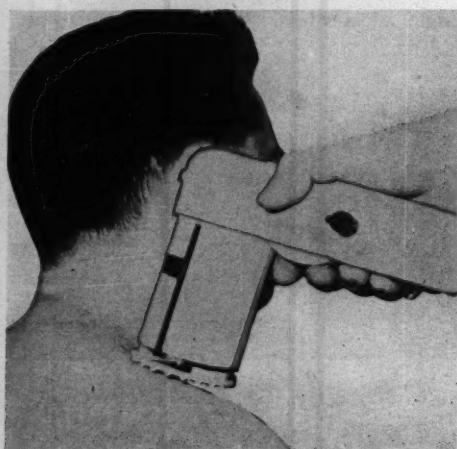
• **JUMPING SHOE.** The new Spalding shoe, designed for field men, combines light weight with reliable, sturdy construction. It features soft, full-grain black leather uppers and tough natural oak leather soles and heel taps into which are set detachable tempered steel spikes. Available in sizes from 7 to 13.



• **TWO-WAY STRETCH NUMERAL.** Made of knit material and sewed on, the new Neva-Tare numerals "give" with the jersey—relieve all strain—insure better fit—and lengthen jersey life. Available only in 8" and 10" sizes on jerseys made by the General Athletic Products Co., and are sewed on only by The Neff Athletic Lettering Co.



• **TRACK MARKER.** A boon to all track-meet managers, this new track marker enables you to lay down all your lines in one operation! Anybody—even your secretary—can line the entire track in only 30 minutes! Comparatively inexpensive, it's one of the many products being marketed by Track and Field Equipment Supply.



• **VIB-REY** is an Infra-Red Heat and Massage Applicator that comes in a light, durable, plastic case. Distributed by Electro-Therapy Products Co., it combines infra-red heat and vibratory massage, offering speedier results in treatment of sprains, aches, etc.

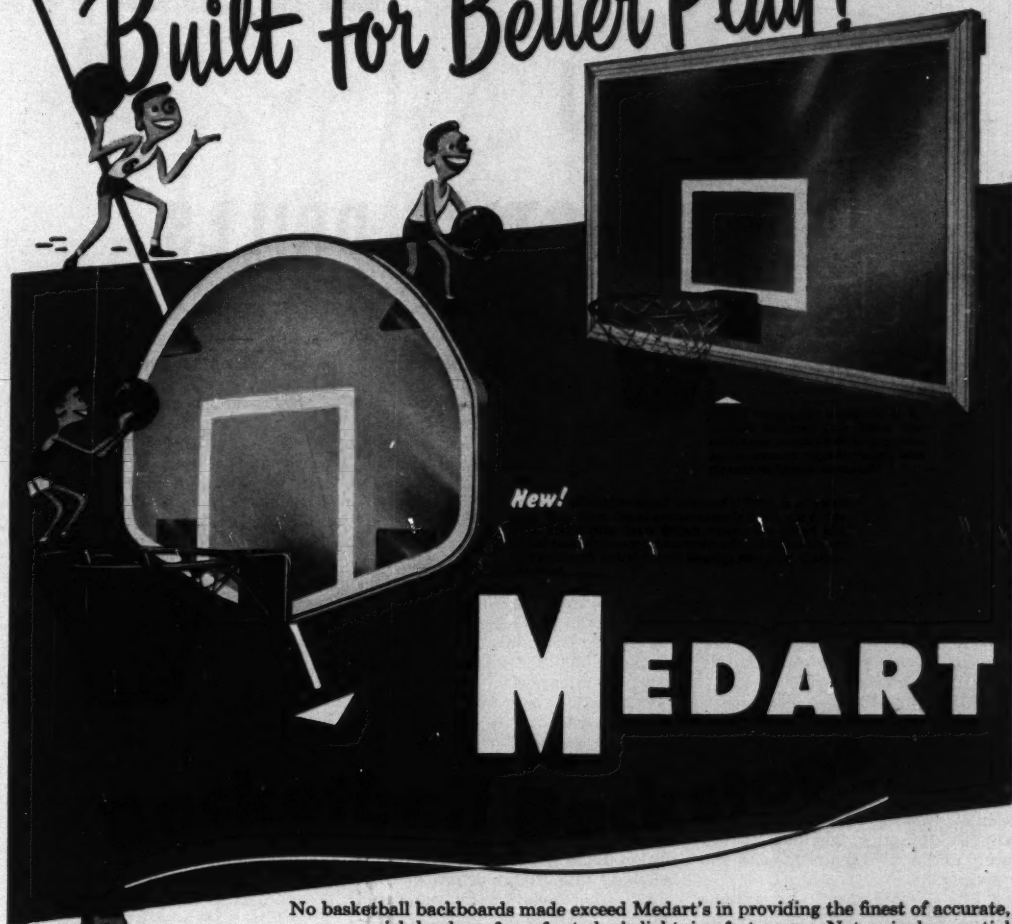
• **ALUMINUM BADMINTON RACKET.** This revolutionary new racket recently introduced by General Sportcraft features an all-aluminum shaft and head, with a wood handle covered with a non-slip rubber grip. The racket is strung with DuPont nylon.



• **LITTLE LEAGUE BATS.** Designed especially for Little League play and conforming to L. L. specifications throughout, these Little League Louisville Sluggers (made by Hillerich & Bradsby) contain full color decal pictures of famous players together with their signatures.



# Built For Better Play!



# MEDART

No basketball backboards made exceed Medart's in providing the finest of accurate, quick-bank surfaces for today's lightning-fast games. Not a single essential quality contributing to greater strength, vibration-free rigidity and long durability is overlooked. Every one conforms with all the standards of the National Basketball Committee. Whether made of steel, wood or glass, they will never distort, splinter, buckle or warp.

But supplying these better backboards for better play is only one phase of the responsibility Medart assumes. Experienced engineers analyze structural conditions, practice and play requirements, and many other related factors including budget limitations, to insure properly installed, thoroughly satisfactory "Tailored-To-The-Job" equipment.

It is wise to consult Medart on every backstop matter involving either new building, remodeling or replacement. The experience of 80 years, acquired in solving backstop installation problems in every type of building, is yours without obligation.

*Write For New Catalog*

**FRED MEDART PRODUCTS, INC.**

3542 DE KALB STREET  
ST. LOUIS 18, MISSOURI

*World's Only Complete Single Source For Gymnasium Equipment*

Telescopic Lockers & Wire Lockers & Bunk Beds Basketball Physical Fitness Basketball & Football Physical Therapy  
Gym Seats Basket Shelving Grade-Robes Backstops Apparatus Ball Scoreboards Equipment



# Baseball

## PRACTICE DRILLS

**T**HE problem of organizing baseball practice must be considered, first, in terms of the total teaching job to be accomplished during the season, and, second, in terms of the work to be undertaken daily at various stages of the season.

The nature of the game and the variety of skills required to play it necessitate long hours of practice, a large area in which to practice, and a great deal of individual instruction. For this reason, meticulous planning is essential. Without it, you'll find most of the squad sitting or standing around—rapidly losing interest in the game.

In attacking the problem, some of the following facts should be kept in mind:

1. Existing indoor and outdoor facilities should be exploited fully.

2. In keeping with the cardinal rules of learning (interest span and fatigue), practice sessions should rarely exceed two hours for any one individual.

3. The number of practice sessions usually available outdoors, plays an important role in the planning.

4. Full use should be made of available teaching aids, such as movies, filmstrips, and felt boards.

5. Provision must be made to work indoors during inclement weather. When flooded out of your regular area, it's often possible to modify certain drills to fit small well-drained outdoor areas around the campus.

6. A certain number of lectures are necessary. Plan to fit them into the program so they do not steal "field work" time.

7. Every effort should be made to introduce a variety of drills and new teaching methods. Though motivation isn't usually a problem, the more interesting and stimulating the practice sessions, the more favorable

will be the reaction to the baseball program from the student body, administration, and fans.

For coaches in teacher training institutions, this is particularly important since physical ed majors invariably adopt their own mentor's methods upon entering the profession themselves.

8. Almost all coaches are faced with the difficult and unpleasant task of cutting their squad. Plans should be made to handle this in a manner that won't generate ill-will toward the baseball program. Every coach is obliged to screen all candidates, despite the fact that he might have already made up his mind on his final roster.

9. Practice session plans should contain as many play-situation type drills as can be devised. One of the difficult tasks in coaching baseball is to develop good pressure reaction in inexperienced players. Play-situation drills will often assist in developing this all-important quality.

10. Other factors to be considered include: the number and qualifications of assistant coaches, the time available for each daily practice session, the experience of the current squad, the necessity for developing new material, and the size of the budget.

With so many factors to be considered, it's a wise idea to draw up an annual check-list of the items deemed essential to the success of the squad. As you draw up the list, you may indicate roughly the weeks in which you intend stressing the various items.

Supplementary lists should be made up from time to time as a further basis for program planning. To be effective, the list should be revised every year in the light of past experiences and changing personnel.

Naturally, many of the items will

be carried on simultaneously, and the chronological order will be important only in respect to the condition of the squad and its readiness for new phases of the game. The accompanying list is in no sense exhaustive and should be considered only as an example. (See page 42.)

Such a check list will provide an over-all view of the total teaching job ahead, as well as a record of the work done and the amount of time devoted to each phase of the game. It may also be used to compare the success of one year's training program with the next, and as a basis for change.

After construction of the check list, the next step is to break the total teaching job down into units which can be covered during a single session. These daily session units may then be organized into weekly practice programs according to the judgment of the coach.

The accompanying worksheet offers a method of systematically planning each day's practice session. The fact that a written record of each day's work is maintained may stimulate the coach to improve his organization. The form provides for those items generally included in every practice. (See page 40.)

The author has found it particularly helpful in checking upon the amount and kind of work done on play situations, base running, and individual instruction. If desired, a carbon may be posted on the dressing room bulletin board to inform squad members of the day's work before coming on the field.

To obtain maximum effectiveness from the check list and the practice worksheet, the coach should list all the drills he knows for infield practice, outfield practice, play situations, base running, and, above all, hitting. The series of drills which



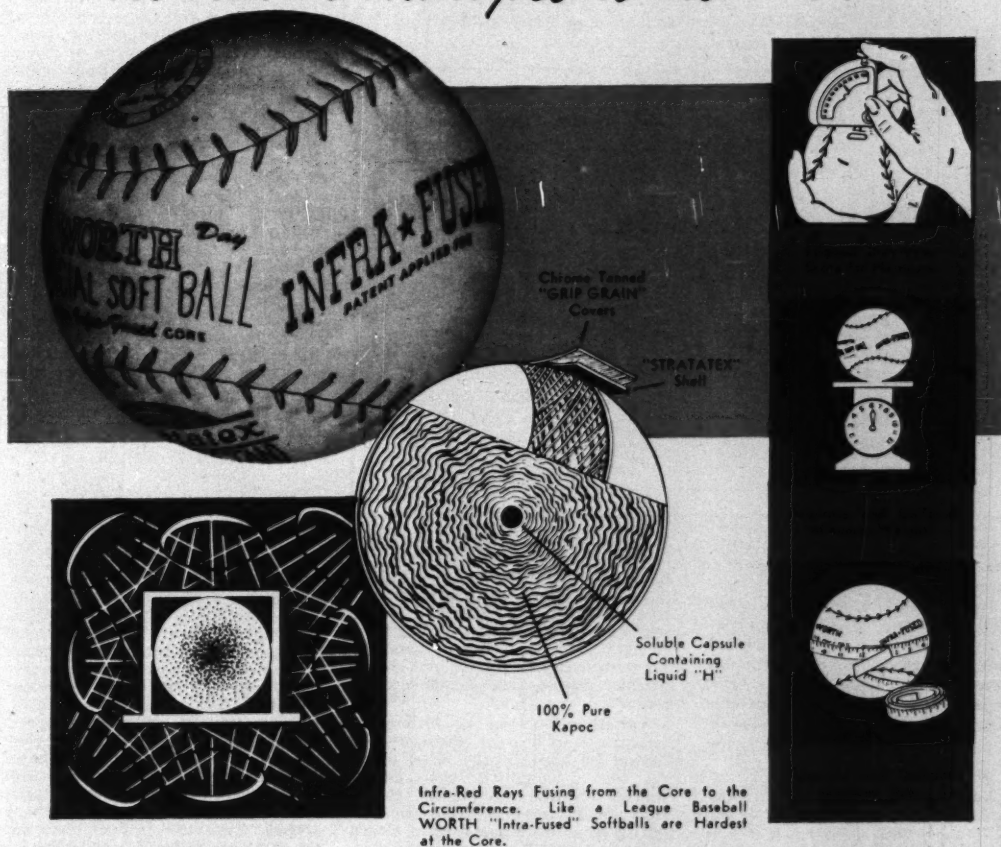
# WORTH

# INFRA★FUSED

PATENT PENDING

# SOFTBALLS

*As New in Principle as the "H" BOMB*



Infra-Red Rays Fusing from the Core to the Circumference. Like a League Baseball WORTH "Infra-Fused" Softballs are Hardest at the Core.

**WORTH** .. *Another Name for Value*  
**GRINNELL, IOWA** **TULLAHOMA, TENN.**

# Baseball Practice Worksheet

Date: MARCH 6, 1953

Week of Practice: 2nd

Time Allotment

## WARM UP

30 MIN.	Running	<u>Pre-Practice 4 laps</u>	<u>15 min.</u>
	Exercise	<u>Sprints after practice</u>	
	Pepper	<u>Regular series</u>	<u>10 min.</u>

## HITTING PRACTICE

1 HR 10 MIN.	Type: <u>3 punts - Run out last ball - 2 rounds of this followed by situation hitting</u>	Pitchers	Catchers	Time
		<u>PORT</u>	<u>JOHNSON</u>	<u>15 min.</u>
		<u>LORE</u>	<u>"</u>	<u>15 "</u>
		<u>PAZDAN</u>	<u>FRY</u>	<u>10 "</u>
		<u>MORGAN</u>	<u>"</u>	<u>15 "</u>
		<u>MARBRY</u>	<u>HOOKE</u>	<u>15 "</u>

## INFIELD PRACTICE

20 MIN.	<u>Regular drill - several minutes on handling runners trapped between bases</u>
---------	--

## OUTFIELD PRACTICE

20 MIN.	<u>Standard "short" drill - stress going back on fly balls - Assistant Coach or extra pitcher using fungo while infield is working</u>
---------	--

## PLAY SITUATIONS & BASE RUNNING

	<u>Hit and run and sacrifice during hitting practice</u>
--	--

## INDIVIDUAL INSTRUCTION

Players	Work Needed
<u>JOHNSON (C)</u>	<u>Handling foul flies</u>
<u>HOLT (3B)</u>	<u>"</u>
<u>MORGAN (P)</u>	<u>sacrifice situations runner on 2<sup>nd</sup></u>
<u>MARBRY (P)</u>	<u>"</u>
	<u>"</u>
	<u>"</u>
	<u>"</u>
	<u>"</u>

follow are a few which the author has used with varying degrees of success.

It's particularly important to have well-organized hitting practices which do not drag and which provide for many game pressure situations. Every coach has his tried-and-trusted favorites. The problem is to produce a new one occasionally.

## HITTING DRILLS

**Variation 1.** Standard pre-game drill. Hitting order established, three hitters at cage. Three pitchers assigned for 10-15 min. each. Catchers divide time. Assistant or extra pitcher hitting to infield and outfield. Hitters may bunt 1, hit 3 fair, run out last hit. Or hit 4, bunt and run out. Or hit 5 out of cage, then go to field or absorb individual work. Or take 5 swings, bunt 1.

When extra cage and space is available, twice as much hitting may be had by setting a cage in deep center field and dividing squad into two hitting groups. Center fields will not be needed. Use several men to shag balls in right and left and leave others free for such things as pepper and sliding practice. Hit as many rounds as time permits.

**Variation 2.** Have all hitters hit equivalent of two or three rounds during one turn in cage. After pitchers are in condition, have curves thrown on half the pitches. Batter calls for curve early in season. Use only pitchers with best control. Coach controls time. Assistant hitting fungoes to infield and outfield. Coach evaluates and corrects hitters. Have batters practice leads after their turn at bat. Give catcher opportunity to throw. Use second base and shortstop. Practice hit and run with part of hitters.

**Variation 3.** Situation hitting. Use full defensive team. Place runner on 1b. Play no outs for one round—give hitters sacrifice, hit and run, and steal signals. Have batter react to situation. Use umpire. Control count on batter. Play all balls hit full speed. Do not use batting cage. Switch offensive and defensive teams either by certain number of outs or by clock. Place runner in scoring position—third base—bases loaded. Change number outs. During this type of drill, have runner on second base attempt to steal third occasionally, giving catcher practice in throwing. Use base coaches.

**Variation 4.** Instead of using full count in situation drill, give each hitter only one strike to move runners. Batter still runs hit out.

**Variation 5.** Bring from five to seven players in to hit. Permit one swing. If batter fails to hit ball fairly, strikes and misses, or fails to run out fair hit ball in proper manner, he must go to field and send in another hitter. Another variation is to penalize him a turn at bat. Use three-quarter speed fast balls early with control pitchers. Later in season, instruct pitcher to get hitter out. In this case, use an umpire and call strikes.

**Variation 6.** Establish a hitting order. Set number of swings. Have each batter take proper number of swings, then give him one more. If on extra swing, he hits a line drive or a ground ball into a hit sector of infield, he continues to hit until he misses, pops up, fouls, or hits an easy roller.

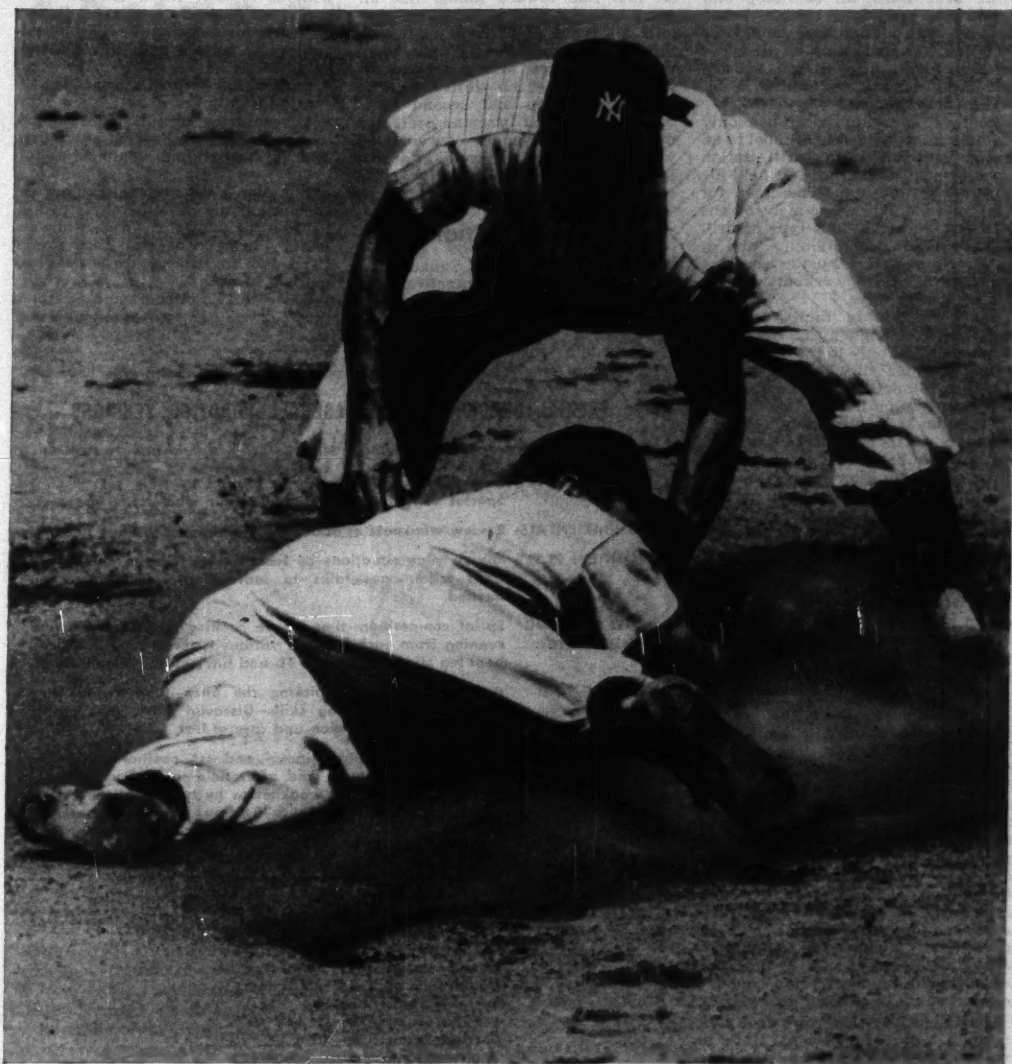
**Variation 7.** Have all outfielders hitting. Use spare pitchers to shag. Fungo to infield. Then have infielders hitting, while outfielders receive fungoes in another part of field. Have an extra pitcher warmed up to throw bunting practice to batters as they finish turn in cage. Batters work on drag and push bunts as well as sacrifice.

## INFIELD DRILLS

Prior to use of following drills, infielders should be thoroughly reviewed on fundamentals of fielding ground balls. Review should cover footwork, proper body position, use of hands, and various types of throws.

**Variation 1** (Early Season). Establish several small infields with base-lines approximately 60 feet. Divide infield candidates into as many squads as are needed to accommodate everyone. Use a spare infielder or outfielder as hitter. Have hitter roll ball to infielder as in regular infield practice. (Catcher can do this.) Control speed and direction to give all types of balls. Since distances are short, there isn't much danger of injury to arms. Insist that first basemen practice moving to bag. Drill has proven good for screening candidates as well as means of conditioning and correcting all candidates.

**Variation 2** (Early Season). Use three fungo hitters—one on left of cage, one in front, and one on first base side, each with six or eight balls. Line up all third base candidates in



## BETTER SUPPORT FOR BETTER SCORES

**OFFICIAL SUPPORTER OF THE CHAMPS:**  
The World's Champion New York Yankees  
Baseball Club is using and endorsing  
Johnson & Johnson Supporters for the  
sixth straight season.

In those vital split-seconds that decide games, the Johnson & Johnson  
TRUMP V-FRONT Supporter won't hamper a player's action.  
For it's designed to lift—will not slip, sag or chafe.

Durable, too. The TRUMP has a long-lasting Permoflex  
elastic webbing that stands up under hard, school laundering.

Examine the complete line of Johnson & Johnson Supporters.  
Winners all—you need them on your winning teams.

**Johnson & Johnson**

**SUPPORTERS FOR WINNERS**



a file near third, all shortstop and second base candidates behind second (remove bag), all first base candidates near first. Ground balls of all types are then hit in order to men in each file, who field ball and roll to a retriever near hitter.

Another variation is to use only one file on left field side of infield and one on right side. In this drill, station a player near mound for left field file to throw to and a first baseman for right field file. These two men roll the balls to a receiver. This type of drill is effective in conditioning, and if players and hitters hustle can give everyone a heavy workout without risk of arm injuries.

For correction of faults, such as "flinchers" or "high hips," use a bag of balls and hit only to the one player. Have him just flip ball on ground sideways to another man, then hustle back to ready position.

**Variation 3** (Early Season). Post all infielders at their *halfway* positions. Hit ground balls to be fielded and thrown three-quarter speed. Good for checking form and speed of getting throw off. Use two first basemen. Have first man move off after his throw to plate, with second man moving into position to take next throw. Two balls can be used in this manner.

**Variation 4** (Any time after arms are in condition). Use two sets of infielders. Have a double-play drill, stressing every type of ball capable of being turning into a double play.

**Variation 5** (After arms are in condition). Situation Drill. Use one set of infielders as runners. Place a pitcher on mound. Instruct him to throw medium speed. Coach fungoes or hits. Set up all types of double steals and sacrifices. Gives catcher practice throwing to all bases. Provides: base running and sliding, practice for pitchers, throwing under game conditions for catchers, and bunting practice. Insist on full speed execution after plays are clearly explained in slow motion. This drill should be preceded by a chalk talk. Outfielders should also be used part of time. Signals should be used after squad is executing plays properly.

**Variation 6** (After arms are conditioned). Get-a-Hit Session. Have infielders warmed up good. Announce all balls are going to be fungoes for a hit and have infielder make the play if possible. During sessions, hit bunts, swinging bunts, Texas leaguers over and between positions, and ground balls into hit slots. Pull infield in and hit sharp balls to all positions to be thrown for both tags and force plays at plate. On several occasions, outfielders should take regular positions to practice calling for fly balls between infield and their position.

**Variation 7.** Cage Drill. Place all infield candidates in position. Use two fungo hitters—one on third base side of plate and one on first base side. Assign a catcher to each hitter. Place batting cage around first base. Use other types of screens if available. Place a first baseman inside cage and one outside

on foul line toward home. Use an extra base for him to tag. Drill permits all types of balls to be hit to third base candidates, giving them throws to extra first baseman. At same time, hitter on third base line hits to shortstop and second base, who throw to first baseman protected by cage. This provides concentrated work for a number of candidates and is particularly useful in early season screening and conditioning.

### SQUAD ROTATION

The "County Fair" or Squad Rotation Method is usually practical only after a review has been given of various skills. Sometimes it may be used

without review, when enough competent coaches are available. Experienced lettermen may be used to advantage in certain situations as leaders and critics.

Divide entire squad into groups according to number of skills you want to cover during session. For example, the procedure for skills of hitting, bunting, and sliding would be as follows:

1. Assign a pitcher and catcher for each group and have them warmed up in time for their turn in cage. Establish a hitting order for each group. Place two or three extra pitchers in outfield to shag.

2. Detail two pitchers and a catcher

(Continued on page 69)

### PARTIAL CHECK LIST FOR BASEBALL PRACTICE SESSIONS

At the left of each item, indicate the week in which it should first be stressed.

**CONDITIONING:** General procedure for entire squad.

Special work for pitchers and certain players.

**FUNDAMENTALS:** Review weakness of each player—note special work needed.

**POSITION PLAY:** Review play situations by lecture—slow motion demonstrations—scrimmages—talks to individuals—corrections when needed.

**BASE RUNNING AND SLIDING:** Sprint competition—timed base running to each base and running from each base on various types of hits—hook and bent leg slides—sliding to 1b and back to 1b. Double-steals.

**HITTING AND BUNTING:** Aggressiveness—eyes—picking the pitch—total swing—bunt situations and bunting skills—Discover those with ability to bunt for hit—selection and care of bat.

**PITCHING:** Throwing techniques—windup and set positions—throwing to bases from mound and after fielding various types of ground balls—batters' weaknesses by types—Ball and strike situations—pick-off—pitchouts—fielding techniques—handling bunts—covering 1b—backing bases—reaction to double steals—best pitch—confidence.

**PLAY SITUATIONS:** Offense and defense with the necessary signals.

Vary game situations as to outs and innings.

Singles to all fields runner on 1b

Singles to all fields runner on 1b and 2b

Singles to all fields runner on 2b

Doubles to all fields runner on 1b

Doubles to all fields no runners

Sacrifice—runner on 1b

Sacrifice—runner on 1b and 2b

Sacrifice—runner on 2b

Squeeze—running—safe—double

Steals—plain

double—early start—delayed

Hit and run (also with sacrifice)

Run and hit

Fake bunt and steal 2b occupied

Double plays—all types under game conditions

Pick-offs—by catcher

Pick-offs—by pitcher

**SIGNAL SYSTEM:** Offense and defense

**BASE COACHING**

**DUTIES OF MANAGERS**

**SCOUTING ARRANGEMENTS** if feasible

**PERSONAL AND SQUAD REVIEW** of known opponents strengths and weaknesses prior to each game.

**LIST OF INDIVIDUAL PLAYERS** who should be scheduled for additional work either in practice or in studying their position.

# CONTROL DUST...



## with **Gulf Sani-Soil-Set**

**GULF SANI-SOIL-SET** is the practical answer to your dust annoyance problems. Here are a few of the many good reasons why it will pay you to investigate this efficient dust-control medium now:

**HIGHLY EFFECTIVE**—Gulf Sani-Soil-Set eliminates dust annoyance completely immediately after application. No long waiting periods are necessary before the ground is ready for use. The dust allaying effect is accomplished by the action of the compound in adhering to and weighing down dust particles.

**LONG LASTING**—Because of its extremely low volatility and insolubility in water, Gulf Sani-Soil-Set remains effective for long periods. One application per season or year is usually sufficient.

**EASILY APPLIED**—Gulf Sani-Soil-Set is free-flowing, easy and pleasant to use. It can be applied by hand-sprinkling or by sprinkling truck, and spreads quickly.

**SAVES MAINTENANCE EXPENSE**—Gulf Sani-Soil-Set minimizes dust annoyance and expense in near-by houses, stores, and laundries.

Write, wire or phone your nearest Gulf office today and ask for a demonstration of the advantages of this modern proven dust allayer. If you have not yet received a copy of the booklet which gives further information on this quality Gulf product, mail the coupon below. Gulf Oil Corporation • Gulf Refining Company, Gulf Building, Pittsburgh, Pennsylvania.



Gulf Oil Corporation • Gulf Refining Company  
719 Gulf Building, Pittsburgh 30, Pa.

SC

Please send me, without obligation, a copy of the booklet, "Gulf Sani-Soil-Set—the modern, proven agent for controlling dust."

Name.....

Title.....

Address.....

# A Study of the "15-Footers Club"

(Continued from page 7)

body turn and is in excellent position for the push-off. Notice that the right shoulder is close to the pole, allowing a good push-off. Warmerdam hasn't effected good elevation of the feet in this sequence because the bar is set at a low height (for him). Laz is slightly off-balance in this picture due to the fact that his take-off was slightly to the right of the directly-under-the-pole position, but he has effected excellent feet elevation. Cooper is in excellent position as related to the pole.

Richards shows excellent feet elevation and position for the push-off, though I believe his vault is a bit hurried as evidenced by the not yet vertical position of the pole. However, this isn't as serious a fault as it first appears because Richards literally catapults into the air as the result of his tremendous pull-up and doesn't emphasize the push-off.

## PICTURE No. 5

Warmerdam is in the very last stages of the push-off. So is Laz but his vault shows the effect of a faulty take-off. Of course, most vaulters would be satisfied with Laz's poor balance if they could clear 13-6 with the ease shown in this sequence. Cooper is farther over the crossbar than is indicated by the angle of this photograph. He's too far away from the pole to receive optimum benefit from the push-off.

Richards has just released the pole and must move his upper body over the bar very quickly to avoid dragging it off with the chest. This picture shows Richards clearing a 14-8 practice vault with the grace and ease of a ballerina. Warmerdam,

PROGRESSIVE RECORDS OF WORLDS ONLY 15-FEET VAULTERS				
High School	LAZ	RICHARDS	WARMERDAM	COOPER
9	(1944) 10-6	(1941) 9- 0	(1929) 9- 0	(1941) 11-0
10	(1945) 11-4	(1942) 10- 4	(1930) 10-3	(1942) 11-5
11	(1946) 12-3	(1943) 12- 0	(1931) 11-6	(1943) 12-4
12	(1947) 12-3		(1932) 12-0	(1944) 12-7½
College				
Frosh	(1948) 13-0	(1944) 12- 6	(1934) 13-3	(1947) 13-9½
Soph	(1949) 14-2	(1945) 13- 0	(1935) 14- ¾	(1948) 14-2½
Junior	(1950) 15-0	(1946) 13- 8	(1936) 14- ¼	(1950) 14-4
Senior	(1951) 15-1½	(1947) 14- ¾	(1937) 14-7½	(1951) 15- ½
Amateur				
1 year	(1952) 15-3	(1948) 14- 6½	(1938) 14-6	(1952) 14-9
2 year		(1949) 14- 9½	(1939) 14-5½	
3 year		(1950) 14-11½	(1940) 15-1½	
4 year		(1951) 15- 4½	(1941) 15-0	
5 year		(1952) 15- 4	(1942) 15-7½	
6 year			(1943) 15-8½	
7 year			(1944) 15-4	

Laz, and Cooper are using a modified jackknife style of bar clearance, while Richards is using a version of this style that leans closer toward the conventional jackknife.

## PICTURE No. 6

Notice the final flick of the pole by the left hand while the right hand is being pulled over the bar. Displacing the crossbar with the forearms or hands is very discouraging, and can be avoided if the vaulter will concentrate upon getting his hands out of the way. Every vaulter should make sure that he gives the pole a backward flick with the left hand. Dick Coleman, ace Illinois vaulter last season, once

went completely over 14-6 only to have the pole follow-through and displace the crossbar.

## PICTURE No. 7

Warmerdam, Laz, Cooper, and Richards all have glued their eyes upon the spot where they will land. I'm reminded of a potential national champion whose success was cut short by a severely sprained ankle that could have been avoided if he had looked down into the pit.

This form analysis is neither complete nor detailed. It merely provides an overall picture of some of the factors that go to make up good vaulting. I've intentionally avoided reference to the mechanical principles of leverage and motion that are essential to a true understanding of this very complicated event.

If you're interested in technical information on some phase of the vault, try Dick Ganslen's excellent series of articles in this magazine from March to May, 1947,\* or write to him—Prof. Richard V. Ganslen,

\*Due to the heavy demand, these back numbers are no longer available—the entire supply having been exhausted. Interested readers will have to refer to libraries or athletic departments which keep our bound volumes on file.

## STATISTICS ON PUSH-OFF USED ON CHAMPIONSHIP VAULTS

Vaulter	Height	Cleared	Top Hand	Push-off
Moore, Irving	5- 8	14- 6	11- 3	3- 3
Sefton, William	6- 3	14-11	12- 0	2-11
Richards, Robert	5-10	15- 4½	12-10	2- 6½
Cooper, H.	5- 9	14- 7½	12- 1	2- 6½
Cooper, Don	6- ½	15- ½	12- 6	2- 6½
Warmerdam, Cornelius	6- ½	15- 8½	13- 3	2- 5½
Meadows, Earle	6- 1	14-11	12- 6	2- 5
Laz, Don	6- 2	15- 1¾	12-10	2- 3¾





NIGHT ACTIVITIES AT ACADEMY STADIUM, ERIE, PA., DRAW LARGE CROWDS WITH INSTALLATION OF G-E L-69 FLOODLIGHTS.

## Night games with G-E L-69 Floodlights increase attendance, help pay expenses

Night games bring much more than more time for sports. They can mean gate receipts to finance sports equipment, help stock your library, help your school or college buy what it needs. And night games are not hard to get:

**FREE PLANS** from G.E. are yours for the asking. The hardest part—the engineering—is done for you, in G.E.'s "Manual of Floodlighting Plans." It covers 38 complete floodlighting plans, and if you need more help, you can get it from G.E.'s staff of lighting specialists.

**ECONOMICAL SPORTSLIGHT,** the G-E L-69 floodlight gives more light per unit, more light per watt, is easier to install and cheaper to maintain than any comparable unit.

From the simple one-bolt mounting to the convenient beam sight for daylight aiming, the lightweight, efficient G-E L-69 is designed to cut your costs by simplifying your installation. A G-E installation will give you more and better light on your field for your sportslighting dollar.

Whatever your lighting requirements, there's a G-E open or enclosed floodlight to precisely fit your needs.

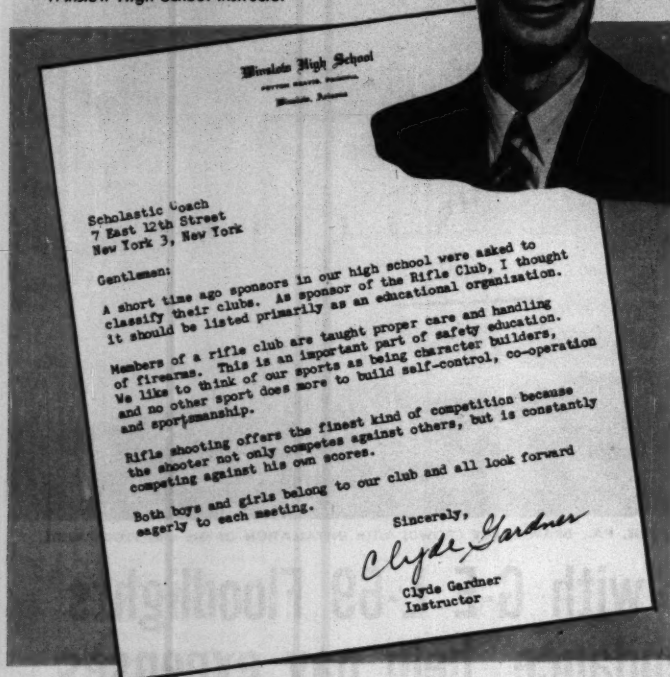
**FOR INFORMATION,** call your nearest G.E. sales representative, or write for "Manual of Floodlighting Plans" (GET-1284) and bulletins GEA-5480 and GEC-533B. Address Section 451-180, General Electric Co., Schenectady 5, N. Y.

*You can put your confidence in—*

**GENERAL  ELECTRIC**

# "Rifle Club is primarily an educational organization"

writes **CLYDE GARDNER**  
Winslow High School Instructor



Remington will help you plan the organization of a rifle club and the building of a range. As a starter, we shall be glad to send you, free, an interesting, fully illustrated booklet containing instructions on the operation of a rifle club—including information on equip-

ment, marksmanship, target shooting, the construction of rifle ranges, and many other subjects of practical value. Just fill in the coupon and mail it to Rifle Promotion Section, Remington Arms Company, Inc., Bridgeport 2, Connecticut.



**Remington**



"If It's Remington—It's Right!"

"Matchmaster" and "Kleanbore" are Reg. U. S. Pat. Off. by Remington Arms Company, Inc., Bridgeport 2, Conn.

Rifle Promotion Section  
Remington Arms Company, Inc., Bridgeport 2, Conn.  
Please send me, free, the Instructor's Manual on the operation of a rifle club.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
School \_\_\_\_\_  
City & State \_\_\_\_\_

Department of Physiology, University of Arkansas, Fayetteville, Ark.—or to this writer.

## COACHING POINTS

**Mental Perspective.** A boy must have enthusiasm and intensity of purpose to become a good vaulter. The coach can play a vital part in developing this essential, but the vaulter's innate mental nature and early home environment are as important. Training rules must be observed, and the boy must be willing to sacrifice some pleasures for the success he aspires. If he isn't willing to do this, he'll never become an outstanding vaulter.

**Coaching the Swing-Up.** The vital point I want to make here concerns the leg and body action as the vaulter starts upward. The knees should be brought sharply toward the chest as the body starts upward. The vaulter should "lay back" on the pole during the swing-up. This important action helps keep the body weight under the pole and makes the pull-up easier, due to a more favorable mechanical lever.

**The Individual.** Every top vaulter eventually develops a style maximally suited to his physical and mental characteristics. The style must be fitted to the vaulter and not the vaulter to the style. But regardless of the final tailoring job, the vault should adhere to sound mechanical principles.

**Method of Crossbar Clearance.** Vaulters used the jackknife long before the flyaway or arch clearance. The first vaulter of national repute to use the flyaway clearance was Charley Hoff who set the world's record at 13-9¾ in 1923. Every 14-6 or better vaulter has used either the flyaway or modified jackknife (also called the arch or modified flyaway style). These basic methods of crossbar clearance are shown in the accompanying illustration.

The jackknife is recommended for mediocre high school vaulters who do not plan on vaulting in college. This method of clearance is slow, but for heights under 12 feet the vaulter can get by with a slow clearance. Though mechanically sound according to the "Principle of Ends," the jackknife doesn't meet the practical need of championship collegiate heights. It's too slow on top of the bar because the two actions, downward leg thrust and push-off, are made individually.

For good high school vaulters, the modified jackknife is recommended. It allows the vaulter to leave the pole quicker because the push-off and downward leg thrust are made

simultaneously. This action retains the advantage of the "Principle of Ends" and also allows fast action on top of the bar.

The flyaway style is the fastest method of clearance but loses some of the advantages afforded by the "Principle of Ends." (The principle of ends may be illustrated by taking a ruler and pulling its ends one way and pushing the center the other. When both ends come down in the vault the middle goes up.)

In the flyaway style, the whole emphasis is on a fast take-off, high grip on the pole, and a long swing-up. The legs aren't thrust downward as they clear the bar. Rather, the vaulter literally flies away from the vaulting pole, generally landing in the back half of the pit. The great majority of champions have used the modified jackknife style. The four vaulters in this discussion are using this style in varying degrees.

**What Makes a Champion?** If anyone knows the answer to this, please tell me. I can only conjecturally discuss a problem that touches at the very heart of human nature and the physical body. First of all, I believe a champion is endowed by heredity with at least above-average physical qualifications of strength, endurance, reflexes, etc.

One cannot make a silk purse out of a sow's ear regardless of determination and effort. All world champions have paid the necessary price of long hours of unbroken training both on and off the track. In addition to ability and hard work, a champion must have a positive and determined mind-set that bounces back unswerved by defeats and discouragement.

He must have confidence in himself. Not the braggart kind of confidence but one that sparks the heart. Confidence can be instilled in varying degrees depending upon the athlete, but the boy must develop much of it from experience and personal conviction. Heredity also has some undeterminable influence.

To ability, training, mental perspective, a final factor is added—circumstances. A champion needs proper facilities, good competition, proper coaching, and living arrangements to bring out his top performance.

By this time you may be thinking to yourself: "But when do the factors of ability, training, mental perspective, and circumstances ever focus within one individual?" The answer is: "Not very often." True champions are the rare exceptions to the average and come along only once in a while.

EXCLUSIVELY TRAMPOLINE

TRAMPOLINE EXCLUSIVELY



Now! See for Yourself . . .

## TRAMPOLINE\* ACTION

and How It Can Benefit Your Gym Courses

NEW TRAINING FILM: "UP IN THE AIR"

featuring GEO. NISSEN and BOB FENNER,  
International Trampolining Authorities

**12** Minutes — 16mm. film demonstrates effectiveness of TRAMPOLINING in physical education and training.

ENTERTAINING and EDUCATIONAL

Show It to Your Classes

Rental: ONE REEL, \$5 Black and White; \$7 in Color

WRITE NOW FOR YOUR SHOWING!

## NISSEN MODEL 549-T

Latest "Flashfold" Design

MINI-TRAMPS — WEBWING WEB BEDS

Standard Parts. Accessories Available for  
Immediate Shipment from Stock

WRITE FOR FREE LITERATURE

# NISSEN

# TRAMPOLINE

\*Reg. U. S. Patent Office

200 A AVE., N.W.

CEDAR RAPIDS, IOWA





Naturally, the pitcher must stand on the same spot on the rubber each time. He must also step to the same spot and land flat-footedly in position to field a ball hit directly back at him. (This will be discussed in more minute detail later on.)

#### PRE-INNING WARM-UP

The pitcher should practice his control at every opportunity. This includes his pre-game and pre-inning warm-ups. He should take full advantage of such periods by throwing to certain targets, aiming at some spot on the catcher—his left knee, right knee, left shoulder, or right shoulder.

Too many pitchers use this time merely to loosen up their muscles, without thought to control. The wise hurler can do both things at the same time; it doesn't take any more physical effort.

#### TAKING SIGNALS

The pitcher's first chore is to take the signal from the catcher. With

nobody on base, the pitcher should take the sign while standing on the rubber. His first thought should be to conceal the ball from the batter. He can do this simply by placing his right hand behind the lower part of his back.

Since a good purchase on the mound is essential, let's see exactly how the right-handed pitcher positions his feet. (The left-hander can easily adapt the following instruction to his particular needs.)

The position of the right foot is of utmost importance. Many a tyro places his right foot completely on top of the rubber. Or he may put just the front part of this foot on the rubber.

This definitely is wrong. The front spikes, when planted on the rubber, prevent proper balance and thus impair control. Only the right rear spikes should be planted on the rubber. The front spikes should be placed in front of the rubber, slightly angled to the right.

When taking the sign with a man on base, the pitcher must assume a sideward stance. He may keep the back (right) foot as in the forward stance or he may angle it even more so that the right (outer) side of the foot contacts the rubber.

If the boy feels too balk-conscious in such a position, he may take the sign while astride the rubber, the left foot in front of it and the right foot behind it. Once he gets the sign, he can assume the proper position for delivery.

After accepting the sign, he never should cross up the catcher by throwing something else. Whenever confused about the signs, he should call time and straighten things out as quickly as possible.

The pitcher can shake off a sign, of course; and it's occasionally wise to do so even when agreeing with the sign and eventually intending to throw the pitch. This apparent disagreement may confuse the hitter and have him wondering what's going on, so that he's unprepared for the pitch when it does come.

#### EYES ON TARGET

As soon as the pitcher gets his signal and starts his wind-up, he should keep both eyes on his target. Some boys have a bad habit of glancing at the ground as they raise their hands, and then trying to pick

## Coaching the Pitcher

(Continued from page 10)



## Keep Your Play Areas CLEAN AND DUSTLESS



with Low-Cost, Odorless

## SOLVAY CALCIUM CHLORIDE

T.M. Reg. U. S. Pat. Off.



Germ-bearing dust on your playgrounds, athletic fields, running tracks, tennis courts and parking areas is as unhealthy as it is annoying. You can rid these areas of dust with SOLVAY CALCIUM CHLORIDE, the clean, colorless, odorless dustlayer. SOLVAY CALCIUM CHLORIDE will eliminate dust on practically all types of unpaved surfaces, and do it economically and easily—it requires no expensive equipment, and even the most inexperienced help can apply it. Your play areas will be better, safer, healthier places after you eliminate the dust hazard this easy way. Used by school boards, park departments and tennis clubs for over thirty years. Order SOLVAY CALCIUM CHLORIDE today.



### Mail Coupon for FREE BOOK

"END DUST with Solvay Calcium Chloride" contains complete information on dust problems, plus details on methods of application, quantities required and other important facts. For your free copy of this book, fill in and mail the coupon today.

#### SOLVAY PROCESS DIVISION

Allied Chemical & Dye Corporation  
61 Broadway, New York 6, N.Y.

Please send me, without cost or obligation, your book, "END DUST with Solvay Calcium Chloride."

Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Zone \_\_\_\_\_ State \_\_\_\_\_

42-4

**B**ESIDES being one of the ten best dressed men on the planet, William (Buck) Lai is a remarkably astute baseball man who coaches (and is athletic director) at Long Island University. A former star all-around athlete at L.I.U., Buck also works on the side for the Brooklyn Dodgers, serving as both a scout and a technical instructor. His article represents just a small part of an extensive chapter on pitching in a book Buck is writing for Prentice-Hall, Inc.

up the target as they release the ball.

Few can successfully do this. A pitcher should keep his eyes on the target from the start of his pump until the ball goes into the catcher's mitt or comes off the bat.

Many beginners, particularly after assuming the set position with men on base, look at the target with only one eye. This is wrong. When ready to deliver, they should train both eyes on the target.

#### PIVOT AND STEP

In bringing the ball overhead, the pitcher should swing his glove up to hide the ball from the batter. All the latter should see is the back of the glove.

That's one of the reasons most pitchers use large gloves. Besides helping snare or deflect hot shots through the box, they assist in concealing the ball from the batter.

When pivoting for his delivery, the pitcher should come off the rubber with the heel of the foot, letting his weight come down on the ball of the foot—which pushes back against the front part of the rubber. A slight turning of the ankle usually accompanies this movement.

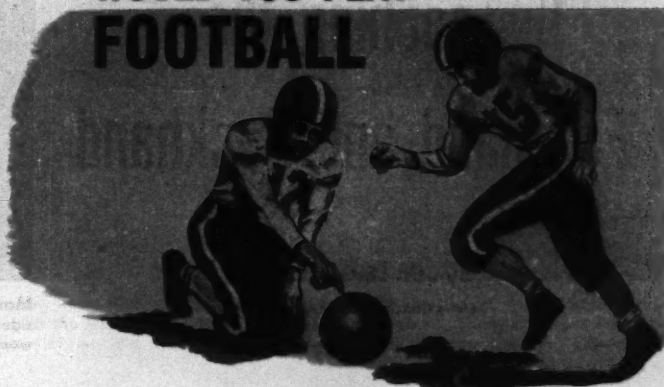
In delivering the ball, it's important to step almost straight forward with the left foot. If an imaginary line were drawn from the inside of the pitcher's right foot to home plate, the left foot would fall to the left of this line.

This stepping action promotes a loose, free delivery—discouraging any tendency to throw "across the body." The boy who throws across his body locks his upper arm with his chest and hence can't throw with a free and easy motion or a proper follow through. (This doesn't apply to the side-armed or crossfirer.)

The hurler can easily determine whether he's stepping correctly by marking out the aforementioned straight line with his spikes. After

(Continued on page 56)

## WOULD YOU PLAY FOOTBALL



## WITH A BOWLING BALL?

Of course not. A bowling ball would be too inefficient for football. The team would be handicapped.

The team is also handicapped if they don't know all of the game statistics at a glance. Many games have been lost by good, inspired teams because they didn't know which down they were playing; how many yards were left to go; how much time was left.

Yes, even coaches sometimes make mistakes because they can't read the old, out-dated scoreboard accurately. Dial-type clocks are hard to read under the best of conditions. When time runs short, accuracy counts.

For more than twenty years Fair Play has built dependable scoreboards. Now, Fair Play has developed a scoreboard which eliminates dial-type clocks. Known as FIGURGRAM numerals, the new Fair Play boards can be read with 100% accuracy at a glance.

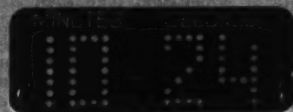
Test after test shows that the new Fair Play FIGURGRAM scoreboards are read with 100% accuracy at a glance and 8 times faster than conventional scoreboards.

Yes, Fair Play pioneered a new type clock and it's catching on faster than the old type did years ago.

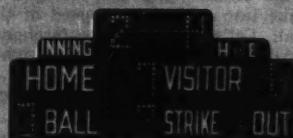
Pep up your school's athletic program. Help the team get the quick, accurate scoring and timing they need.

With Fair Play there's no need for elaborate factory installations. Your school engineer can install and service your Fair Play easily. The exclusive Fair Play construction means that parts are interchangeable with other Fair Play boards too.

Know the score. Know the time. Specify Fair Play. There's a dealer near you. Write for information and his name.



MODEL FB-55-C. Diminishing FIGURGRAM numerals indicate time left to play.



MODEL FB-55-B. Fair Play scoreboards convert easily to handle any athletic event.



MODEL FB-100. "At a glance" with 100% accuracy reading with FIGURGRAM numerals.



MODEL FB-50. Your building department can install and service Fair Play boards.

**FAIR PLAY MFG. CO.**  
73 Thayer St., Des Moines, Iowa

# Teaching the Forehand and Backhand

By **JIM LEIGHTON, Jr.**

*Tennis Coach, Presbyterian College*



**Maureen Connolly:** Turning her shoulders sideward to the net, the world's greatest woman player starts the racket back with both

**L**ET'S approach the forehand drive from the angle that each step in your stroke bears a direct relationship to the ball, and that the rate at which you take each step depends on the speed of the ball. In other words, the slower the ball the more you approximate slow motion; the faster the ball the quicker you pass from step to step, as outlined below.

Now, let's actually put the ball into play and visualize its position with respect to each step in making your stroke. And don't forget to take into account the speed of the ball. Let's start with the forehand. (All instructions are for right-handed players.)

*As the ball is about to leave your opponent's racket:*

1. You are in ready position,
  - (a) with forehand grip,
  - (b) body slightly crouched,
  - (c) on the balls of your feet.

*As the ball leaves your opponent's racket:*

2. Your eyes are focused on the

ball, and you're aware that its motion requires action on your part,

- (a) as it leaves his racket,
- (b) comes over the net,
- (c) bounces,
- (d) as it comes up from the bounce.

3. You are getting ready to hit,

- (a) swing racket back, and at the same time,
- (b) turn shoulders sideways,
- (c) start for the ball, using slide steps along the baseline, or running and adjusting your distance with short steps.

*Just before the ball bounces:*

4. You are in position to hit,
  - (a) sideways (perpendicular) to the net,
  - (b) at comfortable arm and racket length from the ball,
  - (c) your weight on rear foot,
  - (d) racket all the way back, about in line with body,
  - (e) knees bent,

- (f) body relaxed, particularly swinging parts—hand, arm and shoulder.

*As the ball bounces:*

5. You are starting to hit,

- (a) swing your racket forward, from the shoulder, through the arm, by the hand,
- (b) from below the ball,
- (c) on a slight upward plane,
- (d) from inside your intended line of flight toward the outside,
- (e) shifting your weight forward as you do this.

*As the ball reaches the point of hit:*

6. You are contacting it about opposite your front foot (depending on grip),
  - (a) in the center of the racket,
  - (b) waist high (when possible),
  - (c) with racket head properly bevelled (face perpendicular to plane on which ball is intended to go; in other words, open for low



**Straight Clark:** Uncle Sam's No. 12 player turns perpendicularly to the net (left shoulder forward). Keeping his knees slightly bent for comfort, he steps across for the ball

and swings his racket forward fairly levelly. The weight flows behind the swing, moving from the rear to the front foot. The ball is met opposite the front foot with a beautiful





hands, keeping the weight on the rear (left) foot. The racket head is swung directly at the ball, with the weight flowing behind it. The ball is met a bit in front of the right

foot with a free, loose, full arm action. At contact the wrist is locked (stiff), but the racket smoothly continues forward. The arm follows through naturally to the other side.

shots, flat for medium height balls, closed for high balls),

(d) thrusting through the ball.

*As the ball leaves your racket:*

7. You follow its flight with the racket head.

*After the ball leaves your racket:*

8. You are ending your stroke,

(a) straight out in direction of the ball, or

(b) over your shoulder by breaking your elbow and wrist, or

(c) across your body by breaking your elbow.

9. You are returning to ready position.

#### THE BACKHAND

Actually, mechanically speaking, the backhand is an easier shot. In the forehand, the shoulder—the point from which you swing the racket—is behind the rest of the body at the end of the back swing. This necessitates a rotation of the body and the shoulder, if the racket

is to go “out on the ball.” Without this rotation, the racket will go across the intended flight of the ball upon or even before contact.

This isn't true on the backhand. The swinging is now done from the front point, and it's easier to go out on the ball. In fact, rotation of the shoulders and body is dangerous before contact. The shoulder merely has to “go through” the shot as the ball is hit, rotating to the right afterward.

All this explains why you see so many complicated looking forehands compared to smooth backhands, and why so many good players have forehand trouble at some time. Don Budge is a prime example of this. While his backhand is mostly a natural shot, he had to learn a new forehand at 20; and it was two years before he felt completely secure on that side.

The only drawback on the backhand is that we're not used to swinging on that side—that is, if we're right-handed. It takes a little

time to get the swinging habit there, and then the backhand starts to click.

Substitute the following in the afore-listed instructions on the forehand, and you'll see the technical differences between the forehand and backhand:

1. (a) Use the backhand grip.

4. (a) with your shoulder pointed at the ball. Your right foot goes well across your left.

6. You are contacting it about a foot in front of your right hip (depending on grip again).

8. (c) or well across your body to the right.

We want to stress that the racket on both the forehand and backhand should be swung to hit the ball, not pushed or pulled. This simple, swinging motion is a hard thing to perfect, but it's one of the keys to sound ground strokes.

Too many beginners and even advanced players hold the racket with a vice-like grip all the time they're on the court. The only time



fully free and powerful swing, contact being established with a full extension of the arm. The wrist is locked at the moment of contact and the arm follows through in the

direction of the ball. One of the most vital things to remember in both the forehand and backhand is not to crowd the shot. Don't cramp your arm. Hit with a full arm action.



The Standard of Play in  
*Springfield*

**Softballs and Baseballs**

and  
**Joseph T. Wood Baseball Shoes**



From League Park to sandlot, Springfield Official League Balls make the game. Regulation in every respect, they have the built-in life for fast and durable playability. Six baseball and five softball models to satisfy every price range.

**Springfield Official League Baseballs**

Perfect spheres, perfect balance, cushion cork centers, full yarn wound, scuff-resistant, genuine alum-tanned horsehide covers, hand-stitched with 5-strand waxed thread.



**Springfield Official American Fast Ball League Softballs**

The only officially adopted ball of the American Fast Ball League. Standard or white-lacquered for night play.

**Springfield Little League Baseballs**

Made to the precise Little League specifications, officially approved and bearing the signature of Carl E. Stotz, League President.

**Wood Baseball Shoes**

Craftsmen-built for fit, lightness and durability—perfect result of 90 years' experience in the manufacture of athletic shoes. From Blueback Kangaroo (top-choice of the "Pro's") to the officially specified Little League with rubber cleats, there's an expertly-designed, foot-easy Wood Baseball Shoe priced for every ball player.



UNION HARDWARE CO.  
THE SPRINGFIELD CO.

BRISTOL HORTON, INC.  
JOSEPH T. WOOD CO.

RAIN-BEAU PRODUCTS CO.  
THE T. H. WOOD CO.

— the Sports  
**Brand Millions  
Demand!**

*For New 1953 Catalog*

Mail coupon to: SEALAND, Inc., Torrington, Conn.

Please send me the 1953 catalog for Springfield Softballs, Baseballs, and Joseph T. Wood Baseball Shoes.

SC4

NAME .....

CONCERN .....

STREET .....

CITY ..... STATE .....

the racket grip should be tight is at point of contact, and even then it should merely be firm. The rest of the time the grip should be relaxed.

We stress this point because it's impossible to swing the racket if it's held tightly. It's also impossible to swing the racket without a relaxed arm and shoulder. Be sure the hand, arm, and shoulder are relaxed when you go out on the court to follow these instructions, and you'll find your ground strokes coming easier.

**BACK-BOUNCE-HIT TRICK**

The Back-Bounce-Hit constitutes a simple but effective means of teaching the forehand and backhand. It will help your students get their rackets back and improve their timing. It will also enable them to "stay with the ball" longer and increase the rhythm in their game.

We've used those three little words for years with both beginning pupils and advanced college players, and it always gets results.

This method definitely isn't just "beginners' stuff," though it's an ideal aid to them. Helen Jacobs used part of the idea, the bounce-hit part, at the height of her career when even her strokes went off. Time after time, she credited those two words, "bounce-hit," with the regaining of her timing, rhythm, and pace.

We found the phrase in her book *Tennis*, added the word "back" to it, and have used it effectively ever since.

How does it work? Let's assume you're taking your first lesson. I've hit a few balls to you and have suggested that you watch the ball, get your racket back, and stop hitting the ball too early or too late. You're getting a little confused at this point.

I've suggested a lot of things, but you're still not meeting the ball right. This is partly because you're still not getting your racket back and you're still hitting too early or too late.

"Now, let's try the back-bounce-hit trick. I'll come over to your side and tell you about it.

"I want you to watch the ball as it leaves my racket, and as it does I want you to say 'back' to yourself and act on it. Take your racket back as you say it.

"You watched the ball as it left my racket. Now watch it as it comes toward you, as it goes over the net. As it bounces, glue your eyes on it. There's a big difference, you know, between seeing the ball somewhere out there on the court and actually focusing your eyes on it.

"Look, I'll hold this ball here in front of you, about net level. You look about three feet over the net. Can you still see the ball? Of course, you can, but your eyes are not *focused* on it. And that's the way you sometimes 'see' the ball without actually looking at it.

"Now change that from looking in the general direction of the ball to *seeing* it as it leaves my racket, as it comes over the net, and as it comes down for the bounce.

"The second step in the back-bounce-hit trick is this. When it bounces, say 'bounce' to yourself. Be accurate. Don't say it when the ball is here just before it bounces or here just after. Say it *exactly* when it bounces.

"Just when it bounces, start to swing your racket in. Of course the time you start the swing will vary with the speed of the ball. If it's coming at a good rate, you'll want to swing in earlier than the bounce;

**T**HIS concludes a series of three articles by Jim Leighton, Jr., the famous tennis coach of Presbyterian College (Clinton, S. C.). An astute student of the game, he also serves as a tennis pro during the summer and is also college editor of *International Tennis News*. His first article in February stressed the importance of flexibility in tennis instruction, while his second installment last month clearly and thoroughly detailed the mechanics of the famous Budge backhand.

if it's a slow ball, you'll swing in late. You'll do that automatically, anyway, so don't worry about it.

"Let's go over it up to now. You've said 'back' and taken the racket back as the ball left the racket. You've focused your eyes on it as it came over the net and into the bounce. You've said 'bounce' exactly when it bounced. You've seen the ball bounce in other words. And now you're ready for the last part of the trick.

"Say 'hit' when the ball is about opposite your left foot or a little in front may be even better. Be careful about this. You began by hitting too early, then too late.

"Don't say 'hit' back here about mid-waist or out in front here so that you have to push the ball over. I want you to say 'hit' right at this point here, opposite your left foot or an inch or two in front of it to be on the safe side.

"Have you got that now? Back-bounce-hit. Good. Let's try it. I'll hit you a few balls; then I'll come back and let you tell me what it's done for you.

"Here we go . . . See, on those last three balls, you took your racket back early. And they were good shots, weren't they?

"Wait a minute, now. On these next few, say the 'bounce' out loud. I thought so. You've slacked off a bit on watching the ball toward the end of the flight. You said 'bounce' once about two seconds before it hit, and the next time you said it while the ball was coming up from the bounce.

"Say the 'bounce' exactly when the ball hits. That's it; that's better.

"Oh, oh, what happened on that one? The ball went out of court on the right side. You said 'hit' too late. Right? Why did you, though? You swung in too late? Yes, but why? That's right, because I changed the pace of the ball. I hit the last one a little harder, and you just mechani-

(Concluded on page 64)



## HUSSEY *Portable* STANDS

More Comfort, Easier of Access

Hussey's Model 8 patented portable steel grandstands have all the advantages which have made the original Model 6 bleachers leaders in the field of portable seating, and combines with these advantages the comfort and accessibility of modern grandstand construction.

Model 8 has more room between the rows, the foot boards are wider and placed above the stringers, thus eliminating the need for stepping over them and the danger of tripping.

Model 8 and Model 6 both have patented features which cannot be duplicated by any other manufacturer. They can be erected and taken down more easily and more quickly, and stored in smaller space than any other stand on the market. No skilled help is required. The same stand can be used indoors and out. 6, 10 and 15 tier 12 foot sections in stock. Other sizes to order. Additional sections of the same model can be added as needed.

Hussey seating engineers will be glad to discuss your seating problem with you without cost or obligation.

### GUARANTEE

We absolutely guarantee to replace without charge, other than for transportation, any Hussey product which, within a period of 5 years, wears out or proves unsatisfactory.

FREE catalogs and complete information on request. Write today!

IRON WORKERS



SINCE 1833

## HUSSEY MFG. CO., INC.

531 Railroad Avenue

Also manufacturers of—Diving Boards, Floats, Piers, Water Sports Equipment, Flag Poles, Fire Escapes and Miscellaneous Iron

No. Berwick, Maine



# COACHES' CORNER



Please send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 351 Fourth Ave., New York 10, N. Y.

**W**HERE most managers cuss out the umpires, Charlie Grimm baits 'em—with sometimes devastating effect. When Charlie was managing the Cubs, the late Charley Moran, then a gray-ing ump, once called a Cub out at the plate. Several Chicagoans made a wild dash for the arbiter.

Grimm quickly leaped out of the dugout. Laying a sympathetic hand on the ump's head, he glared at his players and roared: "The first guy who puts a finger on this blind old man is fined 50 bucks!"

**That lovable eccentric,** Babe Herman, was mighty proud of his skill with a bat. One afternoon, Heinie Manush, who was batting just ahead of him, was deliberately walked to fill the bases. Though this was a sound strategic move in the situation, Herman was indignant. So much so that he promptly bashed one over the wall.

"What a rock that dope pulled," he fumed, climbing into the dugout. "Imagine passing a lousy .350 hitter like Manush to get at me!"

**Babe's expertness** with the bat was matched only by his ineptness with the glove. When Fresco Thompson, now vice president of the Dodgers, joined the club as a player he had to share the same locker with Babe. This irritated Mr. Herman. "I don't like dressin' with a .250 hitter," he growled.

"And I don't like dressin' with a .250 felder," shot back Fresco.

**When Johnny Mize** played with the Giants, he wouldn't or couldn't bend down to get a ball. In fact, he disdained fielding anything not hit straight back at him.

This moved the famed humorist, Goodman Ace, to wire manager Leo Durocher: "Sir: Before each game an announcement is made that anyone

interfering or touching a batted ball will be ejected from the park. Please advise Mr. Mize that this doesn't refer to him."

**Like most of the real class champions,** the truly great Harrison Dillard is a gentlemanly athlete who's never looking for an edge and who never lets anything bother him. Paul Keller, the veteran mid-western track starter, states (in his article elsewhere in this issue) that in all the years he's been starting Dillard the great Olympic champion has never been guilty of a false start.

Dillard's remarkable *sang-froid* is beautifully exemplified in an anecdote that Keller tells about him. Keller was working a race in which several young sprinters were trying to get a roll-lead over Harrison. They were timing their starts perfectly and rolling with the gun. Since they weren't breaking beforehand, he couldn't call a false start.

"After three recalls," relates Keller, "I apologized to Harrison for all the gun shooting and for my inability to get the race underway."

"Dillard looked at me and smiled. 'Don't worry, Mr. Keller, don't worry at all. The last race I ran there were six or seven recalls.'"

**At the recent Whitman County** freshman basketball tournament held at Colfax, Wash., a dog ran out on the court and brought things to a confused standstill. Time was called while the canine was run to earth and evicted.

During the half, one of the referees bitterly remarked that the tournament sponsors weren't treating the officials very nicely. "What's wrong?" asked a surprised coach.

"Didn't you see them take away our seeing-eye dog?" grinned the official. (Laid up by Donald V. Jacobs.)

**What price glory:** Last season, the Athletics came up with the best rookie

in the league, Harry Byrd; the most valuable player, Bobby Shantz; and the batting champion, Ferris Fain—and finished fourth!

Strangely enough, another pennant-less Athletic team—the 1928 club—will always be remembered as the team that produced more Hall of Famers than any club in history. Seven players destined for immortality played for these A's and an eighth, Connie Mack, managed them.

The team had three fabulous old-timers finishing up their careers—Ty Cobb, Tris Speaker, and Eddie Collins—plus a quartet of brilliant youngsters—Mickey Cochrane, Jimmy Foxx, Al Simmons, and Lefty Grove.

Cobb, at the age of 42, batted .323 for the year.

**The most dictatorial manager** of all time, John McGraw called every pitch, directed every play. His hired hands were puppets with him pulling the strings.

One afternoon he sent the mastodon Lary McLean in as a pinch hitter. It was the last half of the ninth, the score was tied, and the bases were full. Since the situation obviously called for a display of brutal power, McGraw didn't bother giving McLean any instructions. But the pinch hitter instinctively looked over at him. "Hit one into the stands, you dope!" roared McGraw.

The unabashed McLean smiled cheerfully at him. "Which seat, Mac?" he inquired.

**Rarely has anyone** ever capsuled the philosophy of a great hitter as neatly as Paul Waner did during a USO tour in India. The troupe of visitors was in a mess hall when a bat flew down from the rafters. While natives frantically rushed for tennis rackets, the only sure method of swatting the flying mammals, Waner calmly rolled up a newspaper and knocked the bat dead than vaudeville.

"Why, Paul," chided an onlooker, "think of your reputation as a hitter. Suppose you'd missed?"

"So, what?" scoffed Waner. "I'd still have two strikes left."

**Possibly the longest homer** ever hit at the Yankee Stadium was the one poled by Jimmy Foxx off Lefty Gomez—a blow which landed deep into the farthest corner of the upper left field stands.

"I actually threw that ball halfway past you," Gomez later told Foxx. "But I just couldn't get that second half by."

**One day during the 1949 season,** Ewell Blackwell fanned Stan Musial on a twisting pitch that escaped catcher Dixie Howell and enabled Musial to scamper all the way to second. Manager Bucky Walters of the Reds heaved a sigh. "That guy Musial is so good," he groaned, "that even when he fans, a team is lucky to hold him to two bases."

The first time Bob Feller was outfitted with a uniform by Lefty Weisman, the late Cleveland trainer, Feller tried on a cap. "It seems a little big," he said dubiously.  
"See that it stays that way," snapped Weisman.

Casey Stengel is so independently wealthy that he no longer has to make cracks like the one attributed to him when he was once bawled out for refusing to slide home. "With the salary I get," quipped Casey, "I'm so hollow and starved that I'm liable to explode like a light bulb if I hit the ground too hard."

At the beginning of World War II, everybody in baseball wondered whether or not the game would be able to continue. Bucky Harris ran into umpire Bill McGowan one day and asked, "Do you think there'll be any baseball this year, Bill?"

"Gosh, Bucky," replied the ump, "I dunno. Your guess is as good as mine."

"I know that," snapped Harris. "But this is the first time you ever admitted it."

(Credit for the last seven anecdotes goes to Arthur Daley, who batted them out in his book, *Times at Bat*, published by Random House.)

One afternoon the Dodger pitcher came apart with abrupt swiftness and manager Charlie Dressen put in a hurried call for Clyde King. Since King hadn't had time to sufficiently warm up, Dressen signaled Pee Wee Reese to fake an injury so that King could sneak in some extra warmup pitches.

As King started his tosses, Reese suddenly got something in his eye. He walked over to umpire Larry Goetz and asked him to try to get it out. Goetz began peering into his eye and Pee Wee chuckled inwardly. His little scheme was working. His chuckling ceased as he suddenly became aware of a third presence. It was King! He had become so concerned about Reese that he had quit warming up and come over and see if he could help! Poor Pee Wee didn't know whether to laugh or scream.

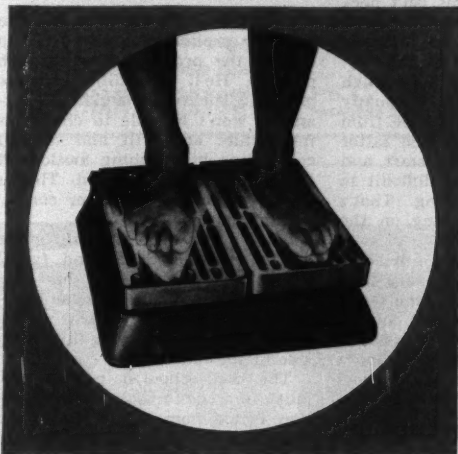
Baseball in Cuba is far more democratic than in the states. If an ump speaks nastily to a player or strikes or pushes him, the latter may retaliate without fear of banishment. (Are you listening, Mr. Durocher?) Oddly enough, this native custom makes for happier relations all way around.

Take first base ump Bernardino Rodriguez, for instance. He was accused of rendering so many bum decisions that players from all four teams in the Cuban League offered to chip in and have his eyes examined. Rodriguez consented, underwent the exam, was told his eyesight was pretty poor—then refused to wear the prescribed spectacles!

Think the boys are now more apt to go out on strikes?

# IT'S PERSONAL!

## Fight ATHLETE'S FOOT the New Sanitary Way



KILL ATHLETE'S  
FOOT Fungus  
with Individual  
Foot Treatment

1. Step on  
2. Mark time  
3. Step off  
*That's all!*

**no dilution • no contamination • no re-used solution**

The SANI-MISTER Spray Dispenser is the most sanitary device yet developed for protection against the spread of Athlete's Foot fungus in your school's shower rooms.

Every foot treatment is individual—clean, full-strength, uncontaminated. No shower drippings can dilute it. No previously used solution to cause possible infection.

According to laboratory tests, SANI-MIST solution kills *Trichophyton Mentagrophytes*, the principal fungi causing Athlete's Foot, in less than 30 seconds. The SANI-MIST method is economical too. Costs only a few cents a day. For complete details mail coupon today.

## SANI-MIST INCORPORATED

1724 Chestnut Street, Phila. 3, Pa.

SANI-MIST, Inc., 1724 Chestnut St., Phila. 3, Pa. 5

Please send me complete details of the safe, clean SANI-MIST method of Athlete's Foot prevention.

NAME \_\_\_\_\_ TITLE \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

each toss, he can then see exactly where his left foot is landing with respect to this line.

The pitcher should wind up in the same spot after every pitch. This means that he should be taking the same stride everytime he throws the ball. The pitcher who varies his stride will have trouble with his control.

Some boys think it's important to take a giant stride. This isn't necessary. The stride should be comfortable, conforming to the pitcher's body build and method of delivery.

The boy who lifts his leg as high as he can and takes an unusually long stride is inviting trouble from opposing base runners. The latter will be able to get a good start, and the catcher will find it difficult to keep them from stealing. That's what's meant by "stealing on the pitcher."

The left foot should not only come down in the same place every time but should land in the same manner. The entire foot should contact the ground at the same instant in flat-footed fashion. The heel should not land first and then be followed by the toe.

The boy whose heel hits first may have difficulty with his control, since he's being jarred every time he re-

leases the ball. Few boys realize that this slight jar can affect their entire bodies.

#### FIELDING POSITION

Often, when trying to put a little extra on a pitch, a boy will fail to end in the proper follow-through position. He'll be "falling off the mound." The right-hander, for example, won't be able to check his momentum and will find himself completing his pitching motion off to the left of the mound. This is hardly conducive to either control pitching or good fielding.

Since the boy will wind up on the first base side of the mound, facing the right foul line, with his right foot in front of his left, he can hardly recover in time to field a shot through the box or to the third-base side of the mound.

The well-schooled pitcher will finish in a comfortable spread position facing home plate, with both feet at right angles to the rubber and the weight over the balls of the

feet. In this position, he's ready to field anything hit directly back to him or to move right or left for a ground ball, soft fly, or bunt.

When fielding a hard hit ball and the play is to first, the pitcher should withhold his throw until the first baseman gets to the bag.

Many youngsters finish their delivery with their right foot closer to the plate. This isn't desirable, but if the boy cannot correct his follow through he may compensate by taking an additional step with the left foot.

This means that he pushes off with his right foot, steps forward with the left, follows through with his right, and then takes an additional step forward with his left to bring it level with his right. This step must be taken quickly and automatically in order to put the pitcher into perfect position for a line drive through the box.

There are only two players on the team who are sometimes permitted to catch a ball with one hand

## Coaching the Pitcher

(Continued from page 49)

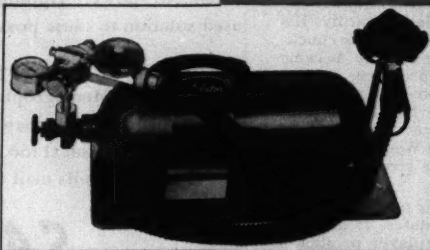
## M·S·A VITALATOR...

Oxygen Pick-Up for Athletes in

**ALL SPORTS**

Because the Vitalator relieves strain on heart and lungs, it provides an ideal health safeguard for young athletes. Administering oxygen, the Vitalator helps the athlete's heart and breathing return to normal more rapidly . . . reduces "panting in air." This oxygen pick-up (it is *not* a stimulant) puts the player back on his feet faster, sends him into competition refreshed and alert. Because of this energy come-back, users report that the Vitalator is the "best reserve team" they ever had.

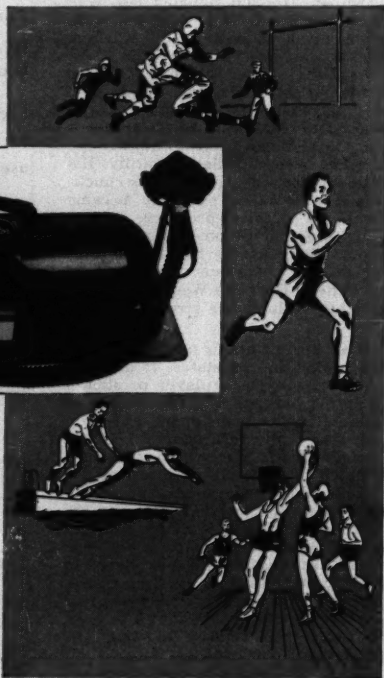
The Vitalator is simple to use . . . no complicated instructions . . . no delicate gadgets are involved. It is self-contained, compact, portable. Give your teams the health and competitive advantages of the M.S.A. Vitalator. Write for complete details.



**NOT A  
STIMULANT...**  
supplies oxygen  
to help offset  
body fatigue

**M·S·A**  
SAFETY EQUIPMENT HEADQUARTERS  
**M·S·A**

**MINE SAFETY APPLIANCES CO.**  
BRADDOCK, THOMAS and MEADE STREETS  
PITTSBURGH 8, PA.





when two could be used. They are the first baseman and the pitcher.

The latter should catch every ball returned to the mound with one hand. This protects the pitching hand against injury. It's so easy to get the "meat" hand in the way of an easy throw that it's foolish for the pitcher to take any needless risks.

After an opponent has been retired and there are no runners on base, it's customary for the infield to throw the ball around before returning it to the pitcher. There's no set pattern to this relay, since it varies according to where the ball was hit.

The pitcher shouldn't attempt to follow the ball from one player to another, trying to guess who'll return it to him. If the team has been coached right, the ball will always wind up with the third baseman—who'll return it to the pitcher. The latter may hence always turn to third as the ball is being zipped around.

The pitcher should always conserve his energy as much as possible. He shouldn't wander all over the mound, walk toward the catcher after every pitch, amble around the infield, or otherwise waste valuable energy. If an infielder wants to talk to him, he should let the player come to the mound.

## Meet Management

(Continued from page 34)

publicity from the Queen contest, and the girls' pictures are always run in the papers.

Also pressed into service for our meet is the school's lettermen club. We select ten boys to serve as greeters at the gym. They show the teams where to dress and direct them to the facilities they'll need to use. Later on, they act as field marshalls.

A good announcer is always essential, and he should be provided with all pertinent material, including a schedule of events, records, advertisers or sponsors, names of queens, etc.

All results should be relayed to him as soon as possible, and a fine coordination between him and the Victory Stand is imperative. The leading scorers, broken records, and interesting sidelights should be regularly announced.

In conclusion, I'd like to say that the enthusiasm and cooperation of your administration, fellow coaches, and officials is the most important factor contributing to your meet's success.

*Spanjian*  
PASADENA

## FOOTBALL CLOTHING

Order Now for Fall Delivery

### NYLON KNIT PANTS and JERSEYS

- Shrink controlled • Matched color uniforms
- Proven top performance

Write for complete football catalog

**SPANJIAN SPORTSWEAR**

P. O. Box 3111  
PASADENA 3, CALIF.



RALPH KINER DEMONSTRATES HIS PORTABLE NIAGARA MESSAGE SET.



**2-UNIT PORTABLE SET:** Can be carried to games and used at the players' bench. Ideal for home use. Used by major ball clubs and top colleges.

**ORTHOPEDIC ADAPTOR:** For use with Hand Unit, above. Directs soothing, healthful massage direct to injured knees, elbows, ankles, wrists, etc.



◀ REDUCE AND PREVENT INJURIES

◀ RELIEVE NERVOUS TENSION

◀ SPEED RECOVERY  
OF INJURED

◀ LOOSEN TAUT MUSCLES

*With the help of  
Niagara*

**DEEP MESSAGE**

**COACHES:** You'll find a Niagara "Mechanical Masseur" a big help in keeping your squad in playing form. Sprains, charley horses, dislocations, stiff and sore muscles—all will respond more quickly to Niagara's patented DEEP Massage action.

Use Niagara's soothing massage on your tense, high-strung players. They'll enter the game relaxed and with muscles limber—"warmed-up" and ready for fast, rough play.

Send coupon for free booklet—read how other athletes and coaches have profited through the use of Niagara DEEP Massage.

**USED AND APPROVED BY LEADING  
TEAMS AND COACHES**

#### FREE BOOKLET

**NIAGARA MESSAGE**  
Adamsville, Pa. Dept. S-4.

Send me free booklet on Niagara Massage for Athletes.

Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



- The National Scholastic Tennis Tournaments are strictly intramural in nature and are designed to promote and incentivize your tennis program—to encourage this excellent recreational sport among all the boys and girls in your school.
- Open to all senior and junior high schools in the United States.
- No entry fee, absolutely no red tape attached to entering. The coupon below will be accepted as an entry.
- Every school has complete and sole control over its tournaments, and may run them in any manner it chooses any time before the end of the term.
- Scholastic Coach merely supplies the tools. Free draw charts are furnished to every school, as well as awards for the winners of each of your tournaments.
- The winning awards consist of handsome gold-finished racket-shaped pins suitably inscribed.

SCHOLASTIC TENNIS TOURNAMENTS, 351 Fourth Ave., New York 10, N. Y.

Please register my school in the following tournaments:

☐ BOYS' SINGLES      ☐ GIRLS' SINGLES      ☐ DOUBLES      ☐ MIXED DOUBLES

School enrollment \_\_\_\_\_ Send awards by (date) \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

School \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

**ENROLL**

**◀ NOW**



## Outfit your players with this GREAT NEW RACKET

**NOW!** Your team can play with one of the finest rackets ever made . . . CORTLAND's new Kovacs Championship Model.

### STRONGER, LIVELIER

This great tennis racket is stronger, livelier, more resilient because it's Radio-Frequency Bonded. Little wonder it's the racket used exclusively by Frank Kovacs, 1953 Professional Clay Court Champion!

### R-F BONDED

All glue joints in the Kovacs Championship Model . . . like those in all CORTLAND Rackets . . . are cured electronically by R-F Bonding. Thus, there are no built-in strains or stresses to cause frame fracture when the racket is strung at high tension. Result: it plays longer, takes repeated re-stringings, is less likely to warp.



### A CHAMPION'S RACKET

Choose CORTLAND's Kovacs Championship Model for your tennis players. Ask to see it at your dealer's . . . where you'll find other outstanding R-F Bonded Rackets on display.

### CORTLAND Championship Ball

Officially adopted ball for 1953 National Clay Court Tournaments. Fresher, livelier, more uniform . . . stays that way longer too. Pressure packed, 3 to a can.

### If it's CORTLAND

. . . IT'S AMERICAN-MADE

### CORTLAND RACKET DIVISION

Cortland Line Company, Inc., Cortland, N.Y.



On the Courts of the land . . . It's

**CORTLAND**



## Arnett Starting Blocks . . . . .

**"The Choice of the 1952 Olympic Champions"**

- Better starts, better performances, less delay. Saves time in running off meets and heats.
- Adjustable to all types of starters, right or left footed, tall or short, in 3 to 9 seconds. Calibrated for remembered individual adjustment.
- So well built for standardization and costs so little, now being used by hundreds of schools one for each lane. "Truly the Champions Block."
- Runners using Arnett Blocks hold many World records and broke several Olympic marks in 1952.
- Buy and furnish one Arnett Block for each lane on your track and quit carrying blocks from school to school, town to town, or nation to nation.
- "The Ultimate in Starting Devices," Dean Cromwell, former U.S.C. Coach, 1948 Olympic Coach.
- "Without hesitation I can say that you have the finest block on the market." L. T. Johnson, U. of Illinois Track Coach.
- Fully guaranteed. Made of Aluminum alloy.

**SCHOOL PRICE, \$18 each, complete—F.O.B. Inglewood, Calif.**

Replaceable Rubber Foot Facings available at \$1 each and "T" Nails 75¢ each

Sold direct to schools at 1947 prices. Send orders to:

**RICHARD W. ARNETT • P. O. Box No. 527, Inglewood, California**



weight coach at Yale, speaks of "critical" momentum, a very useful concept. He contends that each man has a proper momentum, beyond which the loss in balance and power more than compensates for the gain in speed of the turn.

This is undoubtedly true for each man at any given time. Yet such "critical" momentum is actually a challenge to the athlete and the coach to raise it to new heights. A greater relaxation, a slightly different sense of balance, and a slightly increased "off-balance" action will raise the "critical" momentum beyond what is now practical.

Certainly we haven't begun to reach maximum momentum in our discus throwing. Watch the speed with which modern dancers or acrobats whirl. True, the discus is an impeding factor. But that merely means more practice in perfecting its use.

**Learning the turn.** The problem of the turn is not merely how to

learn correct form, balance, and momentum, but also how to learn them as quickly as possible. The great majority of coaches tend toward a cautious step-by-step method. However, 25 years of enthusiastic discus coaching has convinced the writer that a little daring pays dividends.

Since 1940, our discus throwers have all used the one and three-quarters turn and have permitted momentum to come as it would, even during the first weeks of throwing. There have been times of discouragement and no progress, of course. But all in all, we've been satisfied with both the ultimate distances and the economy of learning time effected.

One of the reasons for this has been use of the device shown in **Fig. B.** A cloth belt or strap is tacked to an old discus so that the hand can be easily slipped under it as shown. This strap prevents the discus from being dropped while turning, or from being released at the end of the "throw." Consequently, many more turns can be taken in a short period of time. Without question, discus throwers don't make enough thousands of turns.

When working with a beginner, coaches should ignore the subject of momentum in the turn. Certainly one would never tell a man to turn faster and very seldom to turn more slowly. Rather, the thrower should think through the action and then call out, while turning, the rhythm of a long "turn-n-n-n-n and throw."

If a strapless discus is being used, he should release it on the "throw," no matter how much off-balance the body may be or in what direction the discus may go. He should ignore the details as long as possible and concentrate upon the rhythm and balance of the movement as a whole. The eyes should always be kept at the horizontal, and the discus should move within a single and rather horizontal plane.

The writer believes that this method, thus simplified, produces relatively quick and sure results, and is most certainly faster than teaching and perfecting the one and one-half turn first and then increasing the arc to one and three-quarters later.

**Footwork in the turn.** Space does not permit a full discussion of this problem. However the details of

## Essentials of Discus Throwing

(Continued from page 14)

**"I RECOMMEND IT AS THE FINEST GYM FINISH"**

THE ARKANSAS STATE TEACHERS COLLEGE  
NORMAL STATION, CONWAY, ARKANSAS

January 5, 1953

Consolidated Laboratories  
St. Louis, Missouri  
Gentlemen:

Based on more than ten year's experience with PERMA-GYM-SEAL on our gymnasium, I can heartily recommend it as the finest gymnasium finish.

It is non-slippery, properly deflects light, takes a terrific amount of wear, and is highly resistant to rubber burns.

You have my permission to use this statement if you desire

Very sincerely  
Helen M. Irby  
President

HMI:CLS

**PERMA-GYM-SEAL**

Armor-tough, resilient and longer-wearing, Perma-Gym-Seal produces the finest quick-stop, fast-start surface known. Slip-proof and glare-absorbent. Resists rubber burns, scuffing, oil, acid and perspiration. Won't check, crack or break up. Even boiling water and sub-zero temperatures won't affect it! Used by leading schools and colleges everywhere. Unusually easy to apply—extremely economical.

Approved by Maple Floor Manufacturers Association

**Convince Yourself—Order A Trial Supply Now!**

**FREE!** Official Basketball Court Chart and helpful, informative Maintenance Chart.

*Write For Yours Today!*

**CON-SOL**  
Products  
CONSOLIDATED LABORATORIES DIV.  
CONSOLIDATED CHEMICAL LABORATORIES, INC.  
1470 S. VANDERBILT...ST. LOUIS 16, MO.

placement are well illustrated in Figs. C and D.

The one and one-half turn method as shown in Fig. C provides easier balance but less potential momentum and distance. Fig. D illustrates the foot-work of Gordien, Fitch, Frank (Yale, 1949, 177' 11¼"), Iness, and, incidentally, every thrower the writer has coached since 1940, regardless of his general athletic ability.

**Amount of practice.** A discus thrower should work as long and as hard as ambition and time will permit. There's no other limitation. This is true not only for the number of throws per day, but for the number of days per week and weeks per year as well. There's no danger of going stale physically, of becoming "muscle-bound" or overdeveloped.

Most throwers do become tired after about 30 minutes of steady work and do have a tendency to lose form. However, a short rest or change of activity for 10 to 15 minutes will remove the feelings of fatigue and enable him to profitably resume practice. Or, if preferred, a session of throwing from a stand or of whirling with the strapped discus will condition the body so that more throws can be taken without fatigue the following week.

The only way to better throwing is through more throwing. Always have three or four discuses available so that little time will be wasted in running after them. It's even better to have some one person (but only one, for safety's sake) throwing them back.

But practice, practice, practice is the only road to success.

## Charting Aids for Football Coaches

(Continued from page 22)

during a game. Reference to your first-half average will provide a pretty fair idea of how your offense will move during the second half. Naturally, when you find yourself limited to a certain number of plays, you should look to the chart for those which have proven the most successful—and make good use of them in the second half.

### MASTER PLAY CHART

Another invaluable time-saving device is the Master Play Chart. Usually placed in the players' dress-

ing room, this chart lists every player's assignment on every play (see illustration).

As such, it constitutes a handy tool for last minute check-ups just before game time and especially during half-time intermissions. Rather than bother the coach about certain difficulties, the players may check their positions on the chart. This saves the time involved in leafing through play books, plus conversation and debate among players.

Whenever a player forgets his assignment in practice, he's sent to the dressing room to check the playfinder. Such blunders are scored against his total average, and after several such trips the player begins getting embarrassed—with the result that he begins spending more time on his play book.

In this complex football era, it's more essential than ever to determine your eleven best players—and time generally isn't on your side.

Knowing that statistics, properly compiled, offer good results in every field, I spend a lot of time analyzing the week-to-week improvement of my players as revealed by the charts. Once I determine the top ranking boys in each position, I can be sure of starting my best team.

#### Some of Our Larger Installations

Northwestern University  
Colorado University  
Denison University  
Kent State University  
Purdue University  
Western Michigan  
Bowling Green  
Cleveland Indians  
Chicago Cardinals  
Illinois State Normal  
Port Huron  
Lake Forest College



#### Some High School Installations

Waukegan, Ill.  
Wilkes Barre, Pa.  
Peru, Ind.  
South Bend, Ind.  
Edwardsville, Ind.  
Harrisburg, Pa.  
St. Joseph, Mich.  
Gary, Ind.  
Lansing, Mich.  
Cressona, Pa.  
Lamar, Colo.  
Salt Lake City, Utah

## The famous SCOREMASTER line of Scoreboards

Basketball

Football

Baseball

FIRST in QUALITY  
FIRST in DESIGN

STANDARD MODELS  
CUSTOMIZED

For VISIBILITY and PERFORMANCE, in a class by themselves. Available now for early delivery. Write us for detailed information.

# M. D. BROWN COMPANY

Lake Street, Niles, Michigan

A Technical Baseball Text  
for Coaches and Players

## SKILL ON THE DIAMOND

By Carol R. Gast

★ A new book which covers the game from A to Z, simply and fully analyzing Fielding, Throwing, Covering Bases, Double Plays, Pitching, Batting, Bunting, Base Running, Catching, Coaching, etc.

★ Written especially for High School and American Legion Junior players and their coaches.

★ Supplemented by 28 plates of continuous action sequences with complete explanations of the illustrated techniques. Includes other drawings, diagrams and pictures.

★ Author is head baseball coach at North H. S., Omaha, Neb. Since 1941, his high school and American Legion Jr. nines have won 217 games while losing 70.

Plastic bound . . . \$2.50  
Cloth bound . . . 3.00

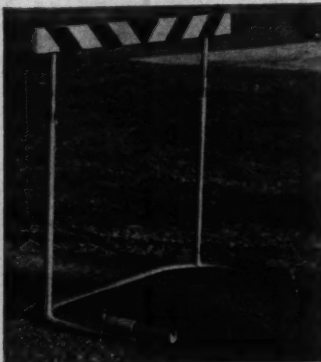
### VIKING ENTERPRISES

P. O. Box 22 Omaha 11, Nebr.

## HURDLES \$6.75

We are making every effort to bring good metal hurdles within the reach of your budget. You can not match these costs in your own shop.

Unadjustable low hurdle . . . \$ 6.75  
Unadjustable 39" hurdle . . . 6.95  
Unadjustable 42" hurdle . . . 6.95  
Special 30, 39, 42" hurdle . . . 9.95  
Official tubular hurdle . . . 14.95



Get our catalogue before you make  
out next year's requisition. We list  
more than 30 similarly priced articles.

**TRACK & FIELD EQUIPMENT SUPPLY**  
2745 ALVARADO SALEM, OREGON



## New Books on the Sport Shelf

• **MODERN TRACK AND FIELD.** By J. Kenneth Doherty. Pp. 512. Illustrated—drawings and tables. New York: Prentice-Hall Inc. \$5.

BOTH at the U. of Michigan and now at the U. of Pennsylvania, Ken Doherty has established a national reputation as one of the soundest, sharpest, most profound track analysts in the coaching ranks.

His approach to the sport is that of an historian and a scientist. An indefatigable researcher and student of body mechanics, he's been observing, analyzing, studying, and teaching track for most of his adult life. And if ever there was a man qualified to write a definitive work on the sport, it is Mr. J. Kenneth Doherty.

His book was three years in the making, and it clearly reflects it. It is a marvelously comprehensive, detailed exposition of everything connected with track—history, promotion, and, particularly, methods. With painstaking care and thoroughness, Doherty touches every base.

After a fine introductory chapter on the place and organization of track and field in both high schools and colleges, he delves right into the promotion of the sport, covering this vital subject soundly and extensively.

The Penn coach then launches his analyses of the individual events. Each is given an individual section in this order: The Sprints (100 and 220), The Hurdles (high and low), Distance Running (half mile, mile, two mile), and Relay Racing.

Doherty then launches the field events, starting with a thoughtful chapter on the coaching aspects of the problem. He then analyzes: The Weight Events (shot put, discus, javelin) and The Jump Events (high jump, broad jump, pole vault).

Doherty concludes his book with excellent sections on the Construction and Care of Facilities and Equipment, and the Olympic Games.

The author's analyses of the individual events are incredibly superb. He traces the development of form from its beginning right up to the present . . . he calls upon former champions for personal observations upon their way of doing things . . . he presents detailed tables of outstanding performances in each event (for both high school and college) . . . he offers detailed training schedules for each event.

The analyses of the events themselves are paragons of clarity, thoroughness, and practicability. And the hundreds of drawings, both single action and sequential series, are excellent. Based upon photos of champion performers, they exemplify perfect form—as recommended by the author.

This fat 500-page encyclopedia of information warrants a conspicuous niche in the library of everybody having any connection with the sport.

• **SKILL ON THE DIAMOND.** By Carol R. Gast. Pp. 175. Illustrated—photos, drawings, diagrams. Omaha, Neb.: Viking Enterprises.

OVER the past 12 years, Carol R. Gast's North H.S. (Omaha, Neb.) and American Legion Jr. nines have chalked up 217 victories against only 70 defeats. So it would seem that Coach Gast knows something about putting together championship clubs.

His book is specially designed for the high school and American Legion Jr. coach and player. Written simply and clearly, it analyzes all the basic techniques of the game—fielding, pitching, throwing, covering bases, double plays, hitting, bunting, base running—stealing—sliding, catching, coaching, managing, etc.

The text is supplemented by 28 plates of progressive action sequences illustrating the basic skills, plus drawings, diagrams, and single action pictures.

The author has a nice, clear way of expressing himself, and both player and coach will have absolutely no trouble following and absorbing the technical instruction.

• **HOW TO PLAY WINNING BASEBALL.** By Arthur Mann. Pp. 158. Illustrated—drawings and diagrams. New York: Grosset & Dunlap. \$2.

A GIFTED sportswriter who later served under Branch Rickey in Brooklyn, Arthur Mann has had an unusual opportunity to study baseball at its finest, and is now accepted as one of the great students of the game.

Into his book, he has crammed all the meat he's assimilated from watching and talking to thousands of big league players and managers. His approach is probing, scientific. In addition to telling you "how," he tells you "why." And many of his theories are fascinating.

His chapter on pitching, for example, represents perhaps the most scientific analysis of the subject ever to see print. His analysis of the causes and effects of spin—upon which all pitching deliveries are based—would do a Tom Edison proud and constitutes a genuine contribution to the literature on baseball.

Mann touches every base—catching, infielding, outfielding, batting, and base running. Under a section labeled "The Non-Combatants," he discusses such vital and interesting subjects as coaching and signs, the umpires, keeping score, scouting, and building and training a team.



The writing, as you'd expect from a former crack sportswriter, is impeccable. The entire text is honey-combed with fascinating inside stories—all with a technical point to them—and everybody—player, coach, and fan—will find *Winning Baseball* an absorbing and instructional volume.



COACHES and gym instructors charged with baseball and softball programs can stimulate their courses with two fine booklets prepared by Hillerich & Bradsby.

The 1953 *Famous Slugger Year Book* is made up of 64 pages packed with baseball interest, including pictures of famous sluggers, records, and highlights of the 1952 season. Of special interest to players is an article by Pee Wee Reese entitled "My Advice to Young Hitters."

The 1953 *Official Softball Rules* also contains pictures of winning teams and records of the 1952 season.

For free copies of these books (for all your players or students), check the "Hillerich & Bradsby" listing in the Master Coupon on page 71.

## Tennis Program

(Continued from page 30)

rious tournaments in which they've participated.

Coaches of other sports have abetted us by encouraging the students to participate in tennis. Their word carries a lot of weight, and any adverse criticism on their part could help defeat any program.

Summing up, then: A good tennis program is possible where proper facilities are secured, proper equipment is made available, proper instruction is given, proper promotion and incentives are furnished, proper recognition is given, and proper administrative and faculty cooperation is obtained.

When you find your students arriving as early as seven in the morning in order to get choice courts for practice games, and filling up the courts again during the noon hour—in good, bad, and indifferent weather—you can be pretty sure that your tennis program is a success.



**STRONGER  
from the START!**

(and what a beautiful finish)

that's

**HERCULES ACETATE SATIN**

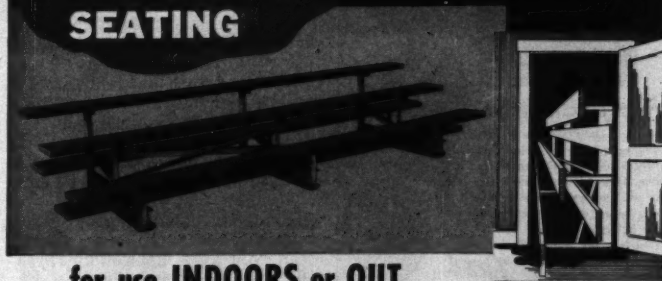


Handsome, colorful Hercules Satin proves its high quality. Its long-wearing stamina has won the preference of coaches everywhere. Be sure to get the strength of **HERCULES** on your team . . . and get smarter Basketball and Track Uniforms and Warm-up jackets!

**ARTHUR KAHN CO., INC.**  
444 Fourth Ave., New York 16, N. Y.

**LOW-COST  
EXTRA  
SEATING**

in a minimum  
of space



**for use INDOORS or OUT  
without DISMANTLING**

If you have a minimum of space this dual-purpose 3 Row Portable Bleacher is designed for you. It is 15 ft. long, 5 ft. deep and when turned on its back can be carried through any standard door without dismantling.

Playtime's 3 Row Portable Bleacher is ideal for use along your gym sidelines or outdoors when the space is limited. In gym-auditoriums it can be used on stage to provide extra seating for basketball games or other sports activities.

Playtime Bleachers available 3 to 15 Rows. Individual, Elevated, Permanent and Continuous arrangements.

Representatives in 36 Cities.

"It's the PANEL that makes the DIFFERENCE"

**PLAYTIME EQUIPMENT CORP.**

MARS, PENNSYLVANIA





The illustration, below, shows the Naden "Instant-Vue" Model N-400-IV—the finest football scoreboard made. Other Naden models, in a wide range of types and sizes, are available to meet every scoring need.

Ask for FREE  
Catalog 5-53



NADEN AND SONS WEBSTER CITY, IOWA



tennis, badminton, squash and paddle tennis.

*Faster play...longer life.*

For years DAYTON Steel Racquets have been the favorite of professionals and beginners alike. Thousands are now playing an improved game—with more speed and accuracy than ever before.

Daytons are practically indestructible—ideal for schools and playgrounds. Steel strings and tubular steel frames are not affected by climatic changes. No covers or presses are needed to protect them. They won't warp, splinter, rot or sag.

It will pay you to investigate now. See them at your local dealer's or write direct to factory for more information.

DAYTON RACQUET COMPANY  
304 Albright St. Arcanum, Ohio

**Dayton**  
STEEL RACQUETS

**FREE**

Rules and court layouts for badminton or tennis are yours for the asking.

## Forehand and Backhand Strokes

(Continued from page 53)

cally went through the back-bounce-hit. You should've said it faster because the ball was going faster.

"Try a few more and we'll talk it over.

"There, those are the best I've seen you hit. Now how do you think it helps you? It makes you keep your eye on the ball? Right, but why? Because you have been given key points at which to watch the ball; therefore, you must watch it at all times to catch it at those key points. That's just the right answer.

"You really focus on the ball now, don't you? You watch it every second. Two things I noticed particularly, you kept your head down while you were hitting the ball and you hit more balls exactly in the center of the racket on that last group than you did before. Of course one of the obvious answers is that you're concentrating more.

"Now, how else did it help you?

"You got the racket back in time to swing smoothly through the ball? Yes, you've never taken the racket back so early. And what else? Your timing improved. Certainly it did. How could it help but do that? You know where the ball is all the time now. You know just when you want to hit it.

"Now there are two more points. One of them you can get if you think about it; the other I'll probably have to tell you.

"Position? No, that's not one of them. If that improved, and I think it did, it's because you're completely aware of the ball and that you must do everything in relation to it. React to it, in other words. Try again.

"You felt that you were in time with the ball? That's a good way of expressing it. Rhythm is what I mean. You were much more rhythmic than I've ever seen you.

"Now for the second point. You know how important it is to 'stay with the ball,' to go out on it. Well, you've improved that phase 100%, and the reason for it is that at the point you hit the ball you've been saying 'hit' to yourself, and you've done just that. You've hit there and hit out. You've been adding more forward motion there because you've been saying 'hit' at that point. It's something like the power of auto-suggestion.

"Well, there's the whole thing. Now let me tell you when to use it.

Use it from time to time when you're practicing. Use it when you're warming up for a match; then forget it. Use it again only if your timing goes off during the match, if your rhythm is broken.

"I believe it will do more for your game right now than anything I can tell you. Good luck with it."

I believe there's quite a lot of the game in this idea. You remember the pupil you've told for ten lessons to get his racket back who, after having failed to do so all that time, says during the tenth lesson, "I know the trouble with me! I don't get my racket back!" And there's the pupil who tells you he's watching the ball and you know that any ball-watching he's doing is incidental to seeing the girl on the next court out of the corner of his eye.

Try the back-bounce-hit system on both of them. Use it on the old timer whose timing is off and use it with the star pupil who somehow stops concentrating. You'll find it a handy tool to have in your repair kit. It can do wonders for forehands and backhands, new, old, or broken-down.

In conclusion, I'd like to repeat that flexibility, not standardization, should be the guiding light of tennis teachers.

Tennis pupils aren't cut from the same cloth. Physique, muscular patterns, and temperaments vary with the individual, and it would be poor pedagogy to teach everybody the same type of stroke.

Another point to remember is that individuals respond differently to instructional methods. A method that might confuse some pupils might be perfect for others.

### TENNIS FOR TEACHERS

Enlarged Edition, 227 pp. . . \$3.50

**MEN AND WOMEN TENNIS COACHES**—This book gives stroke mechanics and strategy; teaching methods for handling large groups of pupils on one court. Included are 73 action photos and diagrams, Official Tennis Rules, graphic wall chart with 18 sketches.

### TENNIS SELF-INSTRUCTOR

A handbook for players, 109 pp. . . \$1.50

**PLAYERS WHO WANT TO IMPROVE**—This self-instruction handbook gives simple directions for learning the nine tennis strokes and improving your court strategy in both singles and doubles. 43 action photos and illustrations that show how champions play their shots.

Send for these books on approval:

H.J. Driver, Frost Woods, Madison 4, Wis.

## Track Starting

(Continued from page 26)

nor more than 2.3s. in the set position.

9. Don't give the "get set" command until ALL are ready.

10. Don't attempt to start a group of unsteady runners. Instead, call 'em up.

11. Don't fail to call a false start on anybody who bolts out of his blocks without the pistol being fired.

12. Don't hesitate to call runners back if one or more have rolled.

13. Don't let a boy compete after two false starts.

14. Don't put the boys "down" on their marks until all are ready.

15. Don't show favoritism toward certain coaches or athletes.

16. Don't shoot the gun to save a boy from securing a false start.

## DO'S

1. Thoroughly prepare yourself for your starting schedule.

2. Perfect your work. Real good starters are scarce.

3. Use suitable starting equipment, including good working guns, smoke-powder shells, white cap, and the special starter's sleeve.

4. Talk in a calm, deliberate, and relaxed manner when giving starting instructions.

5. Be honest with the boys at all times. If you tell them they'll be held, then hold them.

6. Start the boys when all are steady somewhere between 1.7s. and 2.3s.

7. Call false starts when necessary.

8. Toss second offenders out of the race.

9. Recall if one or more runners have "rolled".

10. Treat everybody alike.

11. Be thorough when giving starting instructions to the boys.

12. Be consistent in everything you do.

## SHUFFLEBOARD FOLDER

A NEW folder listing the official shuffleboard rules as revised by the National Shuffleboard Assn. is now available free of charge from the Dimco-Gray Co., 207 East Sixth St., Dayton 2, Ohio.

In 11 sections, the rules detail such items as size of court, equipment, playing rules, scoring, how to appeal decisions, when substitutes may play, and conditions relating to wet courts.

Also given are complete specifications for making a concrete shuffleboard court, including type of material, size, and method of painting, scoring triangles.



FAMOUS for QUALITY...

# SAND KNIT

## FOOTBALL CLOTHING

featuring

The Latest and Finest in  
Jerseys and Pants Including

**The NEW RIBETT-KNIT Pants**

Expertly styled from a sensational PRE-SHRUNK Nylon Knit fabric that was an outstanding success its first season. RIBETT-KNIT provides greater elasticity for snug fit. It is lightweight, strong and extremely durable.

**SPECIAL!** 1953 Exclusive Football Clothing.  
Catalog Available on Request.

**SAND KNITTING MILLS CO.**

538 South Wabash Avenue  
Chicago 5, Illinois

"The best floor I ever played on!"



... When a basketball coach-player says that of  
Robbins IRONBOUND\* CONTINUOUS STRIP\* gym flooring

**YOU KNOW IT'S GOOD!**

Ask any basketball coach or player who has ever played on a Robbins IRONBOUND CONTINUOUS STRIP Maple Gym Floor what a difference it makes! Robbins floors save wear and tear on legs... there are no more complaints of sore calves, ankles, feet. There's controlled resiliency for fast, lively action guaranteed by the way Robbins flooring is laid: a layer of mastic over cement, a layer of cork, another layer of mastic and then Robbins IRONBOUND CONTINUOUS STRIP Maple flooring. Leroy Brandt, Principal of Middletown Community High School, Middletown, Ill., himself a player-coach, writes of the school's Robbins floor: "I feel this floor is the best I ever played on. I am really happy to have this flooring in our gym." With Robbins you get a better playing surface... permanent smoothness... longer life... lower maintenance cost. Yet, Robbins Ironbound costs no more.

**For Your Protection...**

Only authorized contractors install Robbins IRONBOUND CONTINUOUS STRIP flooring. For details and name of your nearest contractor write Dept. S-42 Reed City, Mich.



**ROBBINS FLOORING COMPANY**

World's Largest Manufacturer of Maple Flooring  
Reed City, Michigan • Ishpeming, Michigan

\*Trade-mark Reg. U. S. Pat. Off.



## IDAHO COACHES ASSOCIATION COACHING SCHOOL

Aug. 10-14 Boise, Idaho

### Football

WALLY BUTTS, U. of Georgia

### Basketball

ED DIDDLE, West. Kentucky

### Track

DUBBY HOLT, Idaho St.

### Training

JOE GLANDERS, U. of Idaho

Tuition: \$10, Association Members  
\$17, Non-Members

For complete information, write

**JERRY DELLINGER**

Jerome H. S. Jerome, Idaho

## 27th Annual UTAH STATE Coaching School

Logan, Utah June 2-6

**C. B. "BUD" WILKINSON**

Oklahoma University, Football

**HARRY COMBES**

University of Illinois, Basketball

also Baseball and Training Courses

**TUITION—\$10**

For reservations and information, write

**JOHN RONING, Athletic Director**

Utah State College, Logan, Utah

## UNIVERSITY OF COLORADO COACHING SCHOOL

Boulder, Colo. June 15-20

### STAFF

- IVY WILLIAMSON, Wisc. (Football)
- DALLAS WARD, Colorado (Football)
- BRUCE DRAKE, Okla. (Basketball)
- BEBE LEE, Colorado (Basketball)
- FRANK POTTS, Colorado (Track)
- FRANK PRENTUP, Colorado (Baseball)
- AUBREY ALLEN, Colorado (Training)

plus others to be announced

**TUITION: \$10**

For further information, write

**HARRY G. CARLSON**

U. of Colorado

Boulder, Colo.

## COACHING SCHOOL DIRECTORY

**ADELPHI COLLEGE**—Garden City, L. I., N. Y. Aug. 3-6. Co-Directors, George Faherty (Adelphi College) and John E. Sipos, 3 Hemlock Ave., Huntington, L. I., N. Y. Courses: Basketball. Staff: To be announced. Tuition: \$15.

**ALABAMA UNIV.**—Tuscaloosa, Ala. Aug. 10-13. Director, H. D. Drew. Courses: Football, Basketball. Staff: Dutch Meyer, H. D. Drew, Hank Crisp, Lew Bostick, Happy Campbell, Malcolm Laney, Johnny Jordan, Johnny Dee. Tuition: Free.

**ARIZONA ST. COACHES**—Flagstaff, Ariz. Aug. 17-22. Director, Joe M. Garcia, P.O. Box 61, Litchfield Park, Ariz. Courses: Football, Basketball, Baseball, Track, Training. Staff: Henry R. Sanders, John Wooden, others. Tuition: \$17.50.

**BELOIT COLLEGE**—Beloit, Wis. Aug. 20-22. Director, Dolph Stanley. Course: Practical Basketball. Staff: Dolph Stanley. Tuition: \$25.

**CALIFORNIA POLY WORKSHOP**—San Luis Obispo, Calif. Aug. 20-21. Director, Al R. Arps, San Fernando H. S., San Fernando, Calif. Courses: All Sports. Staff: Jess Hill, Jim Blewett, Joe Verducci, Earl Klapstein, Bob Feerick, Charles Taylor, Payton Jordan, George Wolfman, Terry Bartron, Herb Barthels. Tuition: \$20.

**COLBY COLLEGE**—Waterville, Me. June 18-20. Director, Ellsworth W. Millett. Courses: Football, Basketball. Staff: Harry A. Combes, Harold D. Drew. Tuition: \$17.50.

**COLORADO COACHES ASSN.**—Denver, Colo. Aug. 19-21. Directors, N. C. Morris, Ed Flint, Don Des Combes. (Address Mr. Morris at 1532 Madison St., Denver, Colo.) Courses: Football, Basketball. Staff: Bud Wilkinson, others. Tuition: \$5, state coaches; \$10, others.

**COLORADO UNIV.**—Boulder, Colo. June 15-20. Director, Harry G. Carlson. Courses: Football, Basketball, Track, Baseball, Training. Staff: Dal Ward, Ivy Williamson, Bruce Drake, Bebe Lee, Frank Potts, Frank Prentup, Aubrey Allen. Tuition: \$10. See adv. on page 66.

**EASTERN PENNA. COACHES ASSN.**—East Stroudsburg, Pa. June 22-25. Director, Marty Baldwin, Box 109, Stroudsburg, Pa. Courses: Football, Basketball. Staff: Wes Fesler, Red Dawson, Ben Schwartzwalder, Ken Loeffler, others. Tuition: \$40 (includes room, board, banquet, golf).

**FLORIDA A. & M. COLLEGE**—Tallahassee, Fla. June 15-22. Director, Jake Gaither. Courses: Football, Basketball. Staff: Murray Warmath, Sal Hall, Charles Mather, Cliff Wells, Allyne McKeen, Florida A. & M. Staff. Tuition: \$20 (including room and board).

**GEORGIA COACHES ASSN.**—Atlanta, Ga. Aug. 3-7. Director, Dwight Keith, 320

Ponce de Leon Ave. N.E., Atlanta, Ga. Courses: Football, Basketball, Training. Staff: To be announced. Tuition: \$5, members; \$10, others.

**HAWAII COACHES ASSN.**—Honolulu, T. H. Aug. 3-7. Chairman, Bill Waters, Roosevelt H. S., Honolulu, T. H. Course: Football. Staff: Dutch Meyer, Paul Bryant.

**IDAHO COACHES ASSN.**—Boise, Idaho. Aug. 10-14. Director, Jerry Dellinger, Jerome H. S., Jerome, Ida. Courses: Football, Basketball, Track, Training. Staff: Wallace Butts, Ed Diddle, Dubby Holt, Joe Glanders. Tuition: \$10, association members; \$17, non-members. See adv. on page 66.

**ILLINOIS UNIV.—ILLINOIS COACHES ASSN.**—Champaign, Ill. April 24-25. Director, Robert King. Course: Football. Staff: To be announced. Tuition: \$5, out-of-state coaches; free, association members.

**INDIANA BASKETBALL**—Kokomo, Ind. Aug. 13-15. Director, Cliff Wells, Tulane Univ., New Orleans, La. Staff: To be announced. Tuition: \$10.

**INDIANA ATHLETIC ASSN.**—Lafayette, Ind. Aug. 3-6. Director, L. V. Phillips, 812 Circle Tower, Indianapolis, Ind. Courses: Football, Basketball. Staff: Don Faurat, Stu Holcomb, Jack Gardner, Ray Eddy, Purdue U. Staff, others. Tuition: \$1, state coaches; \$10, others.

**KANSAS COACHING SCHOOL**—Topeka, Kan. Aug. 25-28. Director, E. A. Thomas, 306 New England Bldg., Topeka, Kan. Courses: Football, Basketball, Training. Staff: L. R. Sanders, Branch McCracken, others. Tuition: \$10.

**KANSAS UNIV.**—Lawrence, Kan. June 11-Aug. 8. Director, Henry Shenk. Courses: Football, Physical Education. Staff: J. V. Sikes, others. Tuition: Regular summer session fee.

## Upstate New York Basketball Coaching Clinic

June 25-27 Delhi, N. Y.

**Ken Loeffler—LaSalle**  
1952 N.I.T. Champs

**Dudey Moore—Duquesne**  
1952 Coach of the Year

**Don Swegan—Muskingum**  
Former Ohio H.S. Standout

**TUITION: \$15 (includes set of notes)**  
\$25 for 2 men from same school

**EDWARD J. SHALKEY**  
Delaware Academy, Delhi, N. Y.

**LOUISIANA SMALL SCHOOL COACHES ASSN.**—Lafayette, La. June 5-6. Director, Louis Hanson, Basile (La.) H. S. Courses: Basketball, Six-Man Football. Staff: Cliff Wells, Stuart Nile. Tuition: \$3.

**MICHIGAN UNIV.**—Ann Arbor, Mich. June 22-July 3. Supervisor, Howard C. Leibe. Courses: Football, Basketball, Track, Wrestling, Training. Staff: Bennie Oosterbaan, William Perigo, Jim Hunt, Don Canham, Cliff Keen. Tuition: \$20, residents; \$30, non-residents.

**MONTANA STATE UNIV.**—Missoula, Mont. July 20-24. Director, Lt. Gen. F. W. Milburn. Courses: Football, Basketball, Track. Staff: To be announced. Tuition: \$10.

**NEBRASKA COACHING SCHOOL**—Lincoln, Nebr. Aug. 18-21. Director, O. L. Webb, Box 1028, Lincoln, Nebr. Courses: Football (Eleven-Man, Six-Man). Staff: To be announced.

**NEW YORK STATE**—Rochester, N. Y. Aug. 24-26. Director, Philip J. Hammes, Proctor H. S., Utica, N. Y. Courses, Staff, Tuition: To be announced.

**NORTHERN MICHIGAN COLLEGE**—Marquette, Mich. July 30-Aug. 1. Director, C. V. (Red) Money. Courses: Football, Basketball, Officiating. Staff: Don Faurot, John Jordan, others. Tuition: \$10 (includes room and meals).

**OHIO FOOTBALL**—Canton, Ohio. Aug. 10-14. Director, Jim Robinson, Lehman H. S., Canton, O. Staff: Biggie Munn, Red Drew, Gomer Jones, Jack Mollenkopf, Woody Hayes, Ernie Godfrey. Tuition: \$10, members; \$15, non-members.

**OKLAHOMA COACHES ASSN.**—Oklahoma City, Okla. Aug. 9-13. Director, Clarence Breithaupt, 3420 N.W. 19, Oklahoma City, Okla. Courses: Football, Basketball. Staff: Bud Wilkinson, Gomer Jones, others. Tuition: \$10.

**OREGON UNIV.**—Eugene, Ore. June 22-27. (For information, write Coaching Clinic, Summer Session.) Courses: Football, Basketball, Track, Baseball. Staff: Burt Ingwersen, Len Casanova, Stan Watts, Bill Borchert, Bill Bowerman, Don Kirsch. See adv. on page 67.

**PENNA. ST. COLLEGE**—State College, Pa. Director, John D. Lawther. Courses: Training and Conditioning (June 29-July 18), Soccer (July 20-24), Athletic Problems (June 29-Aug. 8), Intramurals (June 29-Aug. 8), Methods and Principles of Coaching (June 29-Aug. 8), Scientific Methods in Coaching (June 29-Aug. 8), plus Regular Health, Physical Education, Recreation Courses. Staff: Regular University Staff. See adv. on page 67.

**SOUTH CAROLINA COACHES ASSN.**—Columbia, S. C. Aug. 2-7. Director, Harry Hedgepath, 1623 Harrington St., Newberry, S. C. Courses: Basketball, Football. Staff: Bud Wilkinson, Rusty Russell, Clair Bee. Tuition: members—\$5, one course, \$7.50 both; non-members—\$10 one course, \$15 both.



Burt Ingwersen

Burt Ingwersen  
UNIVERSITY OF ILLINOIS  
Len Casanova  
UNIVERSITY OF OREGON

Stan Watts  
BRIGHAM YOUNG UNIVERSITY  
Bill Borchert  
UNIVERSITY OF OREGON

Bill Bowerman  
UNIVERSITY OF OREGON

Don Kirsch  
UNIVERSITY OF OREGON



For further information, please write:

Coaching Clinic, Summer Session

**UNIVERSITY OF OREGON**

EUGENE, OREGON

AUTHORIZED BY OREGON STATE SYSTEM OF HIGHER EDUCATION

**SIGN UP NOW!**

University of Oregon

**Summer Coaching Clinic**

JUNE 22-27, 1953

**FOOTBALL**

**BASKETBALL**

**TRACK**

**BASEBALL**



Len Casanova



Bill Borchert

## THE PENNSYLVANIA STATE COLLEGE

Summer  
Sessions  
1953

Extensive academic program including specialized courses in athletics, administration, coaching, health education, intramurals, recreation, and the natural program.

Health Education Workshop—June 9 to June 26.

One to 12 weeks of study. More than 600 graduate and undergraduate courses included in total offerings.

**INSTRUCTIONAL FEES AND LIVING EXPENSES MODERATE**

for further information and catalogue address:

DIRECTOR OF SUMMER SESSIONS  
ROOM 103-D BURROWES BUILDING

**THE PENNSYLVANIA STATE COLLEGE**  
STATE COLLEGE, PENNSYLVANIA

Inter-Session

June 9 to June 26

Main Summer Session

June 29 to August 8

Post-Session

August 10 to August 28

Don't Let  
**ATHLETE'S FOOT**  
Bench YOUR Players

## ALTA-CO BUILDS MORE EFFECTIVE TEAMS:

Here's the Sound Tested Program  
for ATHLETE'S FOOT Control:

### 1. ALTA-CO POWDER

... for the all-important foot tub in your shower rooms. One pound to a gallon of water kills common Athlete's Foot fungi in less than a minute! Non-irritating; harmless to towels.

### 2. ALTA-CO FOOT POWDER

... for dusting, gives additional protection against re-infection.

### 3. ALTA-CO 300 H.D. FUNGICIDE

... for your daily, systematic washing of shower room floors.

Write for 36-page illustrated booklet,  
"Athlete's Foot—A Public Health Problem"



**FREE BOOK**  
will help you  
TEACH BETTER TENNIS



**FREE**

CLIP COUPON - MAIL TODAY

DUNLOP TIRE & RUBBER CO., Dept. 32, 500 Fifth Ave., New York City  
Send me **FREE** Dunlop tennis books: "How  
Quantity  
to IMPROVE YOUR TENNIS GAME" by Vinnie Richards.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Zone \_\_\_\_\_ State \_\_\_\_\_

*the New Dunlop*  
Championship TENNIS BALLS

**SOUTH DAKOTA ATHLETIC ASSN.**—Huron, S. D. Aug. 17-20. Director, R. M. Walseth, Box 203, Pierre, S. D. Courses: Football, Basketball, Track, Training. Staff: Jack Gardner, Jim Emmerich, others. Tuition: Free.

**STANFORD UNIV.** Stanford, Calif. Director, Alfred R. Masters. Courses: Football (June 23-27), Baseball (June 29-July 3), Basketball (July 6-10), Track (July 13-17). Staff: Regular University Staff. Tuition: Free (unless university credit is desired). Open only to h.s. and jr. college coaches.

**TENNESSEE ATHLETIC ASSN.**—Cookeville, Tenn. July 29-Aug. 1. Director, P. V. Overall. Courses: Football, Basketball, Track, Baseball. Staff: Darrell Royal, Ted Hornback, others. Tuition: \$15.

**TEXAS COACHES ASSN.**—Houston, Tex. Aug. 3-7. Director, L. W. McConachie, 2901 Copper, El Paso, Tex. Courses: Football, Basketball, Track, Baseball, Training. Staff: Johnny Vaught, Dallas Ward, Phog Allen, Buster Brannon, Frank Anderson, Roy Bell, Eddie Wojewski. Tuition: \$15, members; \$16, others.

**UPSTATE NEW YORK BASKETBALL**—Delhi, N. Y. June 25-27. Director, Edward J. Shalkey, Delaware Academy, Delhi, N. Y. Staff: Ken Loeffler, Don Swegan, Dudley Moore. Tuition: \$15 (includes set of notes); \$25 for two men from same school; \$35 for three men from same school. See adv. on page 66.

**UTAH STATE**—Logan, Utah. June 2-6. Director, Joe E. Whitesides. Courses: Football, Basketball, Training, Baseball. Staff: Bud Wilkinson, Harry Combes, Charles Cramer. Tuition: \$10. See adv. on page 66.

**VIRGINIA H. S. LEAGUE**—Richmond, Va. Aug. 13-15. Director, M. U. Pitt, U. of Richmond, Richmond, Va. Courses: Football, Basketball, Training, Baseball, Track. Staff: U. of Richmond Staff, others. Tuition: \$3.00 state coaches; \$10, others.

**VIRGINIA ST. COLLEGE**—Petersburg, Va. July 6-10. Director, S. R. Hall. Courses: Football, Basketball. Staff, Tuition: To be announced.

**WASHINGTON COACHES ASSN.**—Seattle, Wash. Aug. 17-22. Director, A. J. Lindquist, 3215 E. Mercer, Seattle, Wash. Courses: Football, Basketball, Baseball, Track. Staff: Wallace Butts, Phog Allen, others. Tuition: Free, members; \$15, non-members.

**WASHINGTON ST. COLLEGE**—Pullman, Wash. June 15-19. Director, Golden Romney. Courses: Football, Basketball, Track, Baseball. Staff: Clarence (Biggie) Munn, Al Kircher, Jack Friel, Arthur (Buck) Bailey, Jack Mooberry. Tuition: \$15.

**WEST CENTRAL PENNA. COACHES ASSN.** Windber, Pa. Aug. 12-14. Director, E. Clark Shaffer, Johnstown, H. S., Johnstown, Pa. Courses: T Formation Football. Staff: Jack Freeman, Hugh Dougherty.

**National J-FLEX**  
**GYM MATS**  
**NEW! VYLAN**  
**COVERING**  
A Plastic Treated 18 oz. Canvas



New! Loken, Gymnastic Coach at the University of Michigan, says: "Jim-Flex mats offer a complete, safe protection for all types of gymnastics."

**VYLAN MATS  
ARE TAKING  
THE LEAD!**

New Vylan Mats are washable, sanitary, dustproof—tested and approved. Duck textured appearance and "feel." Stands hard wear. Tufted 6 in. intervals with wadded wadding twine. Genuine Jim-Flex Felt filling. Also regular gym mats, white duck covering, and wall mats. Write for new price circular.

**National**  
**sports equipment co.**  
364-374 N. Marquette Street  
FOND DU LAC, WISCONSIN

## TROPHIES • MEDALS

THE MOST SENSATIONAL VALUES FOR  
INTRA-MURAL & VARSITY AWARDS

**TROPHIES**

A NEW SERIES  
(AT NO MORE  
THAN THE COST  
OF A MEDAL)



**MEDALS**

• ANIMATED AWARDS •

CELLULOID BUTTONS

G. O. • BOOSTER • SENIOR

Send for Our New 53 Page Catalog

It gives you the latest in trophies, medals, plaques, ball charms, buttons, etc.

Award Headquarters For Almost 20 Years

**AWARD INCENTIVES, INC.**  
200 WILLIAM ST. • NEW YORK 38, N. Y.



**WESTERN ILLINOIS-ILLINOIS ST.**—Normal, Ill. June 9-10. Director, Howard J. Hancock, Illinois State Normal Univ., Normal, Ill. Courses: Football, Basketball, Baseball. Staff: Bud Wilkinson, Pete Elliott, Branch McCracken, James Smilgoff, others. Tuition: Free.

**WEST VIRGINIA UNIV.**—Morgantown, West Va. June 3-July 10. Director, Ray O. Duncan. Courses: Athletic Administration, Football, Basketball, Training. Staff: West Virginia U. Staff, Art Guepe, Burt Ingwersen, Harry Combes, Charles Forsythe. Tuition: \$5 per credit hour (state residents); \$8 for non-residents.

## Baseball Drills

(Continued from page 42)

for work against backstop as extra cage for bunting practice.

3. Have sliding pit ready. Assign a pitcher and infielder to hold runners and make throws.

4. Send group one to hitting, group two to bunting, and group three to sliding. Have each group rotate to another activity after 15-20 minutes at each station. Use best control pitcher for batting practice. Limit hitters to two or three swings so they will be able to have several turns. Have runners practice all types of slides, then leads and sliding away from tags.

5. Among other possibilities for this type of organization are another batting group, a signal review group, a long pepper group, and a fly ball group.

A squad breakdown type of session is also practical for work on such items as: Pitcher, first baseman, and catcher practicing on plays to pitcher's left; while other groups might be working on footwork on double-plays; making relay and cut-off to second base and third base; practicing bunting for hits, or some variation of a pepper game. This type of session would rarely last more than 20 minutes after which squad might be resnuffed for different work. As a general rule, it seems best to terminate each practice session with some type of well-organized work involving most of squad. Many coaches prefer to end practice with an infield and outfield drill, even though it might last only five to ten minutes.

### OUTFIELD DRILLS

All drills preceded by instruction and demonstration of correct techniques of moving into position and handling various types of fly and ground balls, plus a review of throwing from outfield.

**Variation 1 (Early Session).** Short drill. Divide outfielders into two or more squads. Squads form files approximately 125 feet away from a hitter and a retriever. Balls are hit on ground and in air, leads being increased as conditioning improves. Players at head of file field ball, throw

## BERLIN ALL-STEEL PORTABLE BLEACHERS PROVIDE MAXIMUM SEATING CAPACITY!



FOR  
INDOOR  
OR  
OUTDOOR  
USE

Economy and flexibility are yours when you install Berlin ALL-STEEL Portable Bleachers . . . they are engineered and designed to provide maximum seating capacity to meet your specific requirements, both indoors and outdoors . . . you can add to your original installation at any time in the number of tiers and lengths of the bleachers.

- ★ BUILT IN SAFETY
- ★ EASILY ERECTED
- ★ FLEXIBLE CAPACITY
- ★ STANDARD INTER-CHANGEABLE SECTIONS
- ★ COMFORT PLUS VISIBILITY

Berlin ALL-STEEL Portable Bleachers are designed in standard interchangeable sections, and this complete interchangeability of sections makes storage or set-up simple and fool-proof . . . they are easily erected and in addition to their safety factor, furnish comfort plus visibility.

Write for complete information to

BERLIN CHAPMAN CO., BERLIN, WISCONSIN

**BERLIN**  
SEATING  
ENGINEERS  
BERLIN, WISCONSIN



## Silk Satin TRACK AWARD RIBBONS

- Lettered in **GOLD LEAF** in all places on finest quality silk satin ribbon.
- **FIVE COLORS** available for place winners: *Blue*—first place; *Red*—second place; *White*—third place; *Yellow*—fourth place; *Green*—fifth place.
- Official, Judge, Starter and Coach in Gold on White Ribbon.
- Ribbons contain Name of Meet, Year, Event and Winner's Place.
- All Events for Track, Swimming, Playground Meets and Literary Contests.

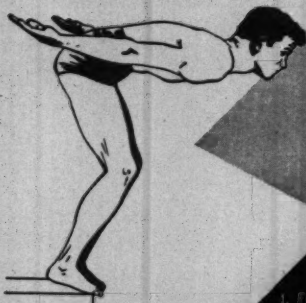
**18¢** per Ribbon Minimum Order \$3.60

We carry a complete line of Trophies and Medals.

Write for further information.

Order direct. Not sold thru dealers.

**The House of Harter** GOSHEN, INDIANA  
INDIANA'S LARGEST WHOLESALE SPORTING GOODS DISTRIBUTORS  
42 HARTER BLDG., GOSHEN, INDIANA



*Compare!*  
**Ocean Champion**  
**NYLON racing trunks**  
**are 5 ways better!**

Hold a pair of OCEAN CHAMPION trunks with any other brand. You'll see at a glance why the OCEAN CHAMPION is better—FIVE WAYS BETTER. No wonder OCEAN CHAMPION is the most popular trunk in the country.

STYLE NO. 65 — \$36.00 dozen.  
Sizes: 24 to 38. Black-Royal-Scarlet-Dartmouth Green-Orange.

**OCEAN WINNER**

All the features of Ocean Champion, but with a front supporter only.

STYLE NO. 66—\$32.00 dozen. Sizes: 24 to 38. Black - Royal - Scarlet.

1. Full Circumferential nylon supporter!

2. Two rows of stitching on waistband prevent curling or folding over!

3. Stronger, tighter weave nylon!

4. Correctly sized Adjustable drawstring!

5. Ocean Pool's superior workmanship (for example, extra-strong double-row stitching everywhere!)

Send for Catalogue of complete line.

**OCEAN POOL SUPPLY CO.**

1140 BROADWAY NEW YORK 1, N. Y.

**"TOUGHIE" ...a new and better flutterboard for instruction**

New plastic cork compound flutterboard impregnated ¼ inch with tough, flexible vinyl plastic coating. Gives exceptional buoyancy and strength.

Unlike wooden lifeboards, it will not cause injury to others in the pool.

Vinyl will not be affected by chlorine or caustic substances used in pools. Brilliant yellow color remains constant.

Flutterboards are 10½" x 18", \$5.25 each  
Immediate Delivery

For further information, write

**SEA NET MFG. CO., INC.**

1428 South Maple Avenue, Los Angeles 15, Calif. PRospect 5008

it to retriever, using good form, then go to rear of file. Distance is increased gradually. Insist on quick "jump" and good form during this drill. Use this all season as standard procedure.

**Variation 2 (Early Season).** Short Single Drill. Outfield candidates are placed in a short straightway position in field they are to play. Nothing but ground singles and line drive singles are hit so that fielders may practice moving in quickly, getting into correct fielding position, and then executing a throw with proper form through a cut-off man or two on base. This drill can be used in combination with the "get-a-hit infield drill." However, it should usually be used several times separately before combining.

**Variation 3 (Mid-Season).** Have a "get-a-hit outfield drill." Hit all types of base hits in front, to side and over heads of outfielders. Permit them to catch enough to keep it interesting. Use two sets of outfielders. Hit plenty of fly balls between outfielders which have to be called. Use last part of time allotted to this drill for practice of relays on extra base hits. Be sure outfielders' arms are warm before this phase of drill. Have fielders throw to proper base or cut-off man through-out drill. Demand accurate throws which do not pull baseman or cut-off man off line. Give player who makes a bad throw another chance immediately to attempt a better one.

**Variation 4 (Fielders' Weakness Workout).** Use file formation. Set up drill with plenty of room. Hit to what you consider a fielder's weakness each time it becomes his turn to field ball. Make corrections. Terminate by placing fielders in regular position and hitting several "medium" chances to them for throws to cut-off men.

**Variation 5.** Two man throwing and ground ball drill. Pair outfielders. Have them face each other at a distance of 150-160 feet. Throws are made to each other using good form. Stress correct fielding technique on ground balls. Limit to approximately ten minutes. Caution must be exercised lest arms get too tired.

**Middle Distances**

(Continued from page 18)

ing drive is launched. At this time, the knee is brought up in sprinting fashion.

The actual stride is governed a great deal by the athlete's physical make-up. High school middle distance runners, I believe, should be subjected to a lot of exercises designed to lift the knee. The lessons learned as a youngster become more or less habit forming.

Always remember that the older a boy gets, the harder it becomes to acquire a loose hip action and the longer it takes to correct improper habits.

## GYM MATS

Cleaned

Repaired

Recovered

Bell Mat Reconditioning Co.  
Plant: 382-386 Michigan Ave.  
Office: 1230 Genesee St.  
Buffalo 11, N. Y.

Coaches! Supplement your present income. Bell Mat Reconditioning Co. needs representatives in every state. Easy and pleasant work. Liberal commissions. Investigate today.

## LOCKER BASKETS

Woven and welded  
checking baskets.

## UNIFORM HANGERS

Space saving uniform  
hangers.



Made from heavy  
gauge, doubly welded  
steel wire. Available  
in sizes to meet your  
locker room needs.  
Write for descriptive  
literature.

**AMERICAN  
WIRE FORM CORP.**  
267-273 Grant Ave.  
Jersey City, New Jersey

## LOOKING FOR WRESTLING MATS?

CHECK THE RECOGNIZED

## PEERLESS MATS AND GYM FLOOR COVERS

MANUFACTURED BY  
**BURCH CANVAS PRODUCTS CO.**  
DES MOINES, IOWA  
WRITE FOR DETAILS

## BASEBALL AND SPRING SPORTS RYAN'S H. & R.

DRY LINE MARKERS  
ACCLAIMED AT THE N.C.A.A.  
AT SAN FRANCISCO



★ Force Feed—Instant  
Shutoff—100 lbs.  
capacity.

★ Easy to fill and  
operate.

★ No Brushes or  
Screens to clog.

SAVES TIME AND  
MATERIAL

Send to Dept. S for booklet on four other models  
H. & R. MFG. CO., LOS ANGELES 34, CALIF.

## MASTER COUPON

To obtain free literature and sample goods,  
carefully check items desired and mail coupon  
directly to Scholastic Coach Advertising Depart-  
ment, 351 Fourth Ave., New York 10, N. Y.

Numbers in parenthesis denote page on which the advertisement may be found. Please  
check the items personally, and to be sure of getting the types of service or infor-  
mation you desire, refer back to the advertisement before checking the listing.

### AMERICAN WIRE (71)

- ☐ Folder on Locker Baskets  
and Uniform Hanger

### ARNETT, RICHARD W. (39)

- ☐ Information on Starting  
Blocks

### AWARD INCENTIVES (68)

- ☐ Catalog of Trophies,  
Medals, Plaques, Buttons,  
Ball Charms

### BELL MAT (71)

- ☐ Information on Mat  
Reconditioning Service

### BERLIN CHAPMAN (69)

- ☐ Information on All-Steel  
Portable Bleachers

### BIKE WEB (35)

- ☐ Coaches and Trainers  
Handbook

### BROOKS SHOE (18)

- ☐ School Catalog of  
Athletic Shoes

### BROWN, M. D. (61)

- ☐ Catalog of Electric Score-  
boards for Baseball,  
Football, Basketball

### BURCH CANVAS (71)

- ☐ Information on Wrestling  
Mats and Gym Floor  
Covers

### CHAMPION KNITWEAR (26)

- ☐ 1953 Catalog of Track  
Uniforms

### COACHING SCHOOLS

- Further information on  
☐ Colorado Univ. (66)  
☐ Idaho Coaches (66)  
☐ Oregon Univ. (67)  
☐ Pennsylvania State (67)  
☐ Upstate N. Y. Basket-  
ball (66)  
☐ Utah State (66)

### CONSOLIDATED LABS. (60)

- ☐ Basketball Court Chart  
☐ Floor Maintenance Chart

### CORTLAND RACQUET (59)

- ☐ "Tennis Tactics" Book  
☐ Badminton Book  
How many \_\_\_\_\_

### CRAMER CHEMICAL (37)

- ☐ Information on Training  
Textbooks

### DAYTON RACQUET (64)

- ☐ Rules and Court Layouts  
for Tennis or Badminton

### DUNLOP RUBBER (68)

- ☐ Booklet, "How to Im-  
prove Your Tennis"  
How many \_\_\_\_\_

### FAIR PLAY (49)

- ☐ Information on Electric  
Scoreboards

### GENERAL ELECTRIC (45)

- ☐ Manual of Floodlighting  
Plans

### GENERAL SPORTCRAFT (2)

- ☐ Rules Booklets for Bad-  
minton, Deck Tennis,  
Shuffleboard, Table  
Tennis, Bat Tennis

### GRISWOLD, LARRY (72)

- ☐ Information on Trampo-  
line Bed and Trampoline  
Manual

### GULF OIL (43)

- ☐ Booklet, "Gulf Sani-Soil-  
Set for Controlling Dust"

### H. & R. MFG. (71)

- ☐ Booklet on Baseball and  
other Dry Line Markers

### HILLERICH & BRADSBY (25)

- ☐ Famous Slugger  
Yearbook  
☐ Official Softball Rules  
☐ Louisville Slugger Bat  
Catalog  
☐ Louisville Grand Slam  
Golf Catalog

### HILLYARD CHEMICAL (31)

- ☐ Schedule and Sports  
Inventory Book  
☐ Basketball Book for  
Scouting and Scoring

### HOUSE OF HARTER (69)

- ☐ Information on Track  
Award Ribbons

### HUNTINGTON LABS. (21)

- ☐ Basketball Coaches Digest  
(free to coaches, 50¢ for  
others)

### HUSSEY MFG. CO. (53)

- ☐ Catalog on Steel  
Portable Bleachers  
☐ Water Sports Equipment  
Catalog

### JOHNSON & JOHNSON (41)

- ☐ Information on Complete  
Line of V-Front  
Supporters

### K. & P. ATHLETIC (28)

- ☐ Information on Daw-  
Metal Crossbars and  
Combination Pole  
Vaulting-High Jumping  
Standards

### KAHN, ARTHUR (63)

- ☐ Addresses of Nearest  
Uniform Maker

### LANNOM MFG. (39)

- ☐ Information on Worth  
Baseballs

### LENTHERIC (4)

- ☐ Information on 70"  
Deodorant Powder

### LINEN THREAD (33)

- ☐ Catalog of Complete  
Line of Gold Medal  
Nets for All Sports

### McKESSON & ROBBINS (15)

- ☐ Sample of "Octofan"  
for Athlete's Foot

### McLAUGHLIN-MILLARD

- (Inside Back Cover)  
☐ Full Color Catalog of  
Adirondack White Ash  
Baseball and Softball  
Bats

### MEDART, FRED (37)

- ☐ Catalog on Telescopic  
Gym Seats, Steel Lockers  
☐ Information, Acromat-  
Trampoline  
☐ Catalog on Basketball  
Backstops, Scoreboards  
☐ Catalog on Dressing  
Room Equipment

### MINE SAFETY (36)

- ☐ Details on "Vitalator"  
Oxygen Pick-Up for  
Athletes

SEE PAGE 72 FOR OTHER LISTINGS AND FORM FOR SIGNATURE





## ETCHED PLAQUES

Of carefully selected solid genuine walnut wood. Designed, manufactured and finished by expert craftsmen. Available in plain (no sport design) or etched in 17 sports. Also available in camping, victory and dancing.

### STATE SPORTING GOODS CO.

202 State Street

Schenectady 5, N. Y.



The Griswold

## TRAMPOLINE BED

World's finest woven webbing bed.

Made to fit any frame—\$178.00

Write for descriptive folder

### TRAMPOLINE TUMBLING

The complete manual for teacher and student. Four-color illustrations..... \$3.75

### LARRY GRISWOLD

1812 Second Ave., S.E., Cedar Rapids, Iowa

## ADVERTISERS INDEX

AMERICAN WIRE FORM CORPORATION	71
ARNETT, RICHARD W.	59
AWARD INCENTIVES, INC.	68
BELL MAT RECONDITIONING COMPANY	71
BERLIN CHAPMAN COMPANY	69
BIKE WEB COMPANY, THE	35
BROOKS SHOE MANUFACTURING CO.	18
BROWN, M. D., COMPANY	61
BURCH CANVAS PRODUCTS COMPANY	71
CHAMPION KNITWEAR COMPANY	26
COLORADO, UNIV. OF, COACHING SCHOOL	66
CONSOLIDATED CHEMICAL LABS., INC.	60
CORTLAND LINE COMPANY, INC.	59
CRAMER CHEMICAL COMPANY	27
DAYTON RACQUET COMPANY	64
DOLGE, C. B., COMPANY	68
DRIVER, H. I.	64
DUNLOP TIRE & RUBBER CORPORATION	68
FAIR PLAY MANUFACTURING COMPANY	49
GENERAL ELECTRIC COMPANY	45
GENERAL SPORTCRAFT COMPANY	2
GRISWOLD, LARRY	72
GULF OIL CORPORATION	43
H. & R. MANUFACTURING COMPANY	71
HILLERICH & BRADSBY COMPANY	25
HILLARD CHEMICAL COMPANY	31
HOUSE OF HARTER, THE	69
HUNTINGTON LABORATORIES, INC.	21
HUSSEY MANUFACTURING COMPANY	53
IDAHO COACHES ASSN. COACHING SCHOOL	66
IVORY SYSTEM	4th Cover
JOHNSON & JOHNSON	41
KAHN, ARTHUR, COMPANY, INC.	63
LANNOM MANUFACTURING COMPANY, INC.	39
LENTHERIC, INC.	4
LINEN THREAD COMPANY, INC.	33
MacGREGOR GOLDSMITH, INC.	17
McKESSON & ROBBINS, INC.	15
McLAUGHLIN-MILLARD, INC.	3rd Cover
MEDART, FRED, PRODUCTS, INC.	37
MINE SAFETY APPLIANCES COMPANY	56
NADEN & SONS ELECTRIC SCOREBOARD CO.	64
NATIONAL SPORTING GOODS ASSN.	30
NATIONAL SPORTS EQUIPMENT COMPANY	68
NIAGARA MASSAGE	57
NISSAN TRAMPOLINE COMPANY	47
OCEAN POOL SUPPLY COMPANY	70
ONOX, INC.	34
OREGON, UNIV. OF, COACHING CLINIC	67
PENNSYLVANIA STATE COLLEGE	67
PLAYTIME EQUIPMENT CORPORATION	63
RAWLINGS MANUFACTURING COMPANY	3
REMINGTON ARMS COMPANY, INC.	46
RIDDELL, JOHN T., INC.	2nd Cover
ROBBINS FLOORING COMPANY	65
SAND KNITTING MILLS COMPANY	65
SANI-MIST, INC.	55
SEALAND, INC.	52
SEAMLESS RUBBER COMPANY	29
SEA NET MANUFACTURING COMPANY	70
SKINNER, WILLIAM, & SONS	19
SOLVAY PROCESS DIVISION, ALLIED CHEMICAL & DYE CORPORATION	48
SPALDING, A. G., & BROTHERS	1
SPANJIAN SPORTSWEAR	57
STATE SPORTING GOODS COMPANY	72
TRACK AND FIELD EQUIPMENT SUPPLY	62
UPSTATE NEW YORK BASKETBALL	66
UTAH STATE COACHING SCHOOL	66
VIKING ENTERPRISES	62
VOIT, W. J., RUBBER CORPORATION	23
WILSON SPORTING GOODS COMPANY	6

## MASTER COUPON

(See page 71 for other listings)  
(Numbers in parenthesis denote page on which advertisement may be found)

### NADEN & SONS (64)

Electric Scoreboards and Timers

- ☐ Baseball Catalog
- ☐ Basketball Catalog
- ☐ Football Catalog

### NATIONAL SPORTS (68)

- ☐ Price Catalog on Jim-Flex Gym Mats

### NIAGARA MASSAGE (57)

- ☐ Booklet on Niagara Massage for Athletes

### NISSAN TRAMPOLINE (47)

- ☐ Booklet, "Tips on Trampolining"
- ☐ Literature on Trampoline Parts and Accessories

### OCEAN POOL (70)

- ☐ Catalog on Racing Trunks, Diving Trunks, Terry Robes, Sweet Suits, Accessories

### ONOX (34)

- ☐ See adv. for Trial Order of Onox Skin (Foot) Toughener

### PLAYTIME EQUIPMENT (63)

- ☐ Catalog of Complete Line of Steel Bleachers

### RAWLINGS MFG. (3)

- ☐ Catalog of Athletic Equipment
- ☐ Book, "Care and Cleaning of Athletic Uniforms"

### REMINGTON ARMS (46)

- ☐ Instructor's Manual on Operation of a Rifle Club, Free Targets

### RIDDELL, JOHN T.

(Inside Front Cover)

- ☐ Information on Suspension Helmets, Shoes, Balls, Track Supplies

### ROBBINS FLOORING (65)

- ☐ Information on Iron-bound Continuous Strip Maple Gym Floors

### SAND KNITTING (65)

- ☐ 1952-53 Catalog of Athletic Uniforms
- ☐ Catalog on Award Sweaters and Jackets, Basketball and Football Pants and Jerseys

### SANI-MIST (55)

- ☐ Details on Sani-Mist Method of Athlete's Foot Prevention

### SEALAND (52)

- ☐ Catalog of Softballs, Baseballs, Baseball Shoes

### SEAMLESS RUBBER (29)

- ☐ Training Manual, "The Strapping of Athletes"
- ☐ Catalog of Footballs, Basketballs, Soccers

### SEA NET (70)

- ☐ Information on New Vaulting Pole

### SKINNER & SONS (19)

- ☐ Information on Skinner Fabrics

### SOLVAY PROCESS (48)

- ☐ Book, "End Dust With Solvay Calcium Chloride"

### SPALDING BROS. (1)

- ☐ Catalog
- ☐ Sports Show Book

### SPANJIAN SPORTSWEAR (57)

- ☐ Complete Football Catalog

### STATE TROPHY (72)

- ☐ Catalog on Trophies, Plaques, Medals, Cups

### TRACK & FIELD SUPPLY (62)

- ☐ Catalog of Track Equipment

### VOIT RUBBER (23)

- ☐ Catalog of Complete Line of Rubber-Covered Balls

### WILSON SPTG. GOODS (6)

- ☐ Catalog

NAME \_\_\_\_\_ POSITION \_\_\_\_\_  
(Principal, coach, athletic director, physical director)

SCHOOL \_\_\_\_\_ ENROLLMENT \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

No coupon honored unless position is stated

April, 1953

**ANOTHER  
Adirondack  
FIRST**

McLAUGHLIN-MILLARD, INC.  
NORTHERN  
**ADIRONDACK**  
WHITE ASH  
DOLGEVILLE, NEW YORK

Adirondack's new  
lighterized profes-  
sional finish bat. Pro-  
duced to meet the demand  
for a lighter bat.

# WHY WORRY?

Don't be alarmed if you find the baseball season getting underway, and you discover that some of your equipment needs attention. Just send it along to the IVORY SYSTEM by express, and we will rush it back in first-class condition.

At the same time, if you have not already made an appointment with an IVORY SYSTEM salesman about your basketball equipment, insure yourself against worry next season by having IVORY recondition and store that equipment until you need it.

You don't *need* to worry if you depend on the IVORY SYSTEM.



"IN A CLASS BY ITSELF"

Ivory System

PEABODY, MASSACHUSETTS

RECONDITIONERS  
OF ATHLETIC  
EQUIPMENT